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EDITED BY

GEORGE KNOWLES SWINBURNE, M.D.

BOLESŁAW LAPOWSKI, M.D.

JAMES C. JOHNSTON, M.D.

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JOURNAL OF CUTANEOUS AND GENITO-URINARY DISEASES.

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Original Communications.

ETIOLOGY OF ZOSTER.*

By WM. GILBERT HAY, M.D.,

Assistant to the Chair of Dermatology, Medical Department University of California; Pathologist to French Hospital, San Francisco; Lecturer on Anatomy, Mark Hopkins Institute of Art. (From the Pathological Laboratory of Douglass W. Montgomery, M.D.)

SO typical is the eruption in herpes zoster, both in the appearance of the vesicles and in their fairly definite anatomical distribution, that among the frequently confusing appearances met with in other diseases of the skin, zoster stands out as a definite clinical entity.

It seems strange, therefore, in a disease of this kind, which seldom requires the services of a dermatologist for a diagnosis, that one of its most constant clinical features should be so generally overlooked.

There is, at least in the majority of cases, an enlargement of the lymphatic nodes in the neighborhood of the eruption. This fact, apparently, was first published by Barthélemy¹ in 1891. His first case was one of zoster affecting the fifth intercostal nerve in which he found enlargement of the lymph nodes in the region of the eruption, including those of the axilla. The glands on the unaffected side, though not as large, were also demonstrable.

A second case, in which the fifth right intercostal nerve was affected, showed an enlarged gland over the scapula. In both cases the glandular swelling preceded the skin eruption.

*Read before the Alumni Association of Medical Department, University of California, October 5, 1897,

Baudoin² recorded two cases of thoracic herpes in which there was adenopathy preceding the eruption, in one inguinal, in the other both inguinal and axillary enlargement.

Winfield,³ Howard,⁴ and others have made similar observations, but they are very few indeed as compared with the voluminous literature of the disease.

Among text-books, no mention of the adenopathy is to be found in Jackson,⁵ Robinson,³³ Osler,⁶ Taylor,⁷ Unna,⁸ Dühring,⁹ Anderson,¹⁰ Pye-Smith,¹³ Ziemssen,¹¹ Jamieson,¹² Moore,³² nor by Leloir.¹⁴ Hyde and Montgomery¹⁵ say that in intercostal zoster glandular swellings are found in the supra- and infraspinous fossæ. Morrow¹⁶ says, "as an unusual complication may be regarded the swelling of the neighboring glands." Crocker¹⁷ in his last edition quotes Barthélemy, but does not mention the fact in his own description of the disease. Brocq¹⁹ says that swelling of the lymph ganglia corresponding to the affected region is often noted.

More positive than these authorities, Strümpf²⁰ says there is "almost constant swelling of the neighboring lymph-glands, in the axillæ, at the lower border of the pectoral muscles, etc." To Barthélemy and Strümpf then, must be given the credit for the recognition of and positive statements regarding the adenopathy attending eruptions of zoster.

In all of the ten cases of zoster that I have been able to see during the past few months (February to June) there was a coexistent adenopathy, but it was impossible to prove that the enlargement of the glands preceded the eruption in every case. In fact, such proof is hardly to be expected, as a patient seldom notices glandular swellings unless they are extraordinarily large or painful, nor does he generally consult a physician before the eruption appears (cf. syphilitics).

Cases.—My attention was first drawn to this feature of zoster by the following case occurring in the practice of Dr. T. A. McCulloch:

A man of twenty-three years suffered from severe occipital neuralgia for two days. A small tumor, which proved to be an ordinary wen, was then removed from over the occipital nerve, it being thought possible that the pain was due to its pressure on the nerve. Two days later the right posterior chain of cervical lymphatic glands enlarged considerably, one attaining the size of a walnut. The posterior auricular gland was also observed to be enlarged. Two days later an herpetic eruption appeared on the right cheek, about one inch above the lower border of the jaw and extending parallel to this border as far as the median line of the jaw, from which point a chain

of vesicles extended down the mid-line of the neck as far as the clavicle (into the fonticulus gutturis). The eruption lasted about three days. The cervical glands remained enlarged for at least two weeks after the eruption disappeared, with the exception of the post-auricular gland, which disappeared synchronously with the eruption, that is, about five days after its first appearance.

Case No. II., sent to me by Dr. Leo Newmark, was a man of forty-five years, a sailor. Thirty-six hours after reaching San Francisco he felt a severe pain in the left side of the head and face, most painful over the left ramus of the jaw. On the following day a lump appeared in front of the left ear. Two days later a group of vesicles appeared above the left eyebrow; successively scattered vesicles came out during the next two days over the left side of the hairy scalp. The pain disappeared after the complete development of the vesicles. The disease ran the usual course and healed completely.

The particular points of interest in this case was the occurrence of the eruption in the course of the frontal branch of the fifth nerve, while the pain was felt and the gland enlarged in the course of either the temporomalar of the superior division, or of the auriculotemporal branch of the inferior division of the fifth nerve. There was no involvement of the oculonasal twigs.

In the third and fourth cases the eruption was in the course of the genitocrural nerve with inguinal adenopathy. In the fourth case the patient was positive that the glandular enlargement preceded the eruption two days. The patient permitted the removal of two of the inguinal glands for experimental purposes.

In the fifth case, for which I am indebted to Drs. H. D. Robertson and Adelina Feder, there was an involvement of the outer trunk of right brachial plexus with enlargement of a supraspinous, and one of the posterior cervical lymph nodes. An interesting feature in this case was that the patient had several times before, one or two vesicles "that looked like these exactly," on the right side of the chin. They only itched, and they have left a slightly indurated scar which the patient says turns red and white with changes in the weather. It could not be determined when the glands enlarged, as the patient had not noticed them at all. The subjective symptoms in this case were very slight.

In case No. VI. the eruption was in the course of the iliohypogastric, external cutaneous, and internal cutaneous nerves. In addition to pain at the points of emergence of these nerves, there was a dull tingling in the axilla of the same side (right). Painful enlargement of the right inguinal glands and one gland at the lower border

of the pectoralis major. It was not ascertainable whether the adenopathy preceded the eruption or not.

Case No. VII. was a thirty-five-year old man admitted into the City and County Hospital for pediculosis. The complete evolution of the zona, therefore, was observed by Dr. Morrow. Six days previous, the patient felt a burning pain in the right axilla (in addition to the itching from pediculi.) Inspection showed a typical eruption on the back from about the first to the third dorsal spines and crossing the median line about one inch. The vesicles extended in the usual patchy manner over the upper two-thirds of the scapula and posterior border of the deltoid, as far as the outer condyle of the humerus. This case closely resembles the fifth case, both in the course and distribution of the eruption and in the absence of severe subjective symptoms.

The eighth case, in the service of Dr. Rea of the City and County Hospital, was an old man with a left supra-orbital zoster with enlargement of the pre-auricular, and one gland in the posterior cervical chain. Neither patient nor attendants had observed the adenopathy, so it was uncertain whether it was pre-eruptive or not.

The ninth case was a young man sent to me by Dr. Rinne. There existed a left intercostal zoster with axillary adenopathy of some magnitude, and a slight inguinal enlargement on both sides, probably insignificant. The prodromal neuralgia had been felt in the axillary line at the level of the eleventh rib (the site of the eruption) and down the inner side of the left arm to the little finger. A point of interest in this case was the fact that the first group of vesicles to appear were furthest from the nerve-center and the succeeding evolution of two other patches followed the same order. This is contrary to the general rule and to Hebra's³⁸ dictum.

The tenth case was a nineteen-year-old male, a patient of Dr. Philip King Brown in the Mount Zion Hospital. He was admitted to the hospital June 9th, suffering from a cough and symptoms of an acute endocarditis. On the following day he felt a pain in the left shoulder and side. On the 15th of June an eruption of zoster appeared in the course of the anterior crural (or crural branch of genitocrural) with accompanying pain on the right side of the penis. He had a universal and very marked adenopathy, and enlargement of the spleen. After the appearance of the eruption he suffered no more pain, but was exceedingly nervous. At the apex of the heart there could be heard a presystolic, followed by short and long harsh murmurs not diffusely transmitted. The pulse was dicrotic. The character of the heart-sounds remained the same during his stay at

the hospital, but the dulness extended day by day more to the right, until the right sternal border was reached. The apex beat was seen just outside the nipple line. The respirations and heart-beat became more and more rapid until he was taken away by his family on the last day of June. He died four days after at his home. No autopsy could be obtained.

Several other cases came under observation, but syphilitic and other complications render them useless in so far as the adenopathy is concerned.

Infectiousness of Zoster.—Zoster has been attributed to innumerable causes, from the "dartous diathesis" (Hardy)²¹ to mental worry and carious teeth. It has been seen coexistent with many other diseases, but no definite causal relationship has been absolutely proven. Grindon⁴⁴ has attempted to clear away some of the mists that surround this subject by separating eruptions due to the following causes from true zoster:

1. Chronic peripheral irritation.
2. Traumatism: (a) central; (b) in continuity; (c) peripheral; (d) reflex.
3. Pressure on a nerve trunk (osteophytes, infiltration of surrounding tissues, pleuritic adhesions).
4. Infiltration of a nerve or ganglion by some neoplasm or a simple (in this regard) non-specific inflammation.
5. The presence in the blood of some irritating substance, such as lactic or uric acid (arthritis).

He styles these eruptions "zosteroids," and adds the interesting fact that zosteroids of frequent recurrence remain limited to their original site or to corresponding opposite region, and that recurring zosteroids, due to traumatism or to continuous peripheral irritation, remain limited to one site.

As the following was written before the above article was obtained, the reader who accepts Grindon's classification will find a number of superfluous reasons for believing in the infectious nature of the disease. Eliminating then the zosteroids, together with arsenical neuritis, we still find a large number of cases that cannot be satisfactorily accounted for other than by assuming the presence of some infectious agent.

The arguments that have been advanced in support of this idea are briefly as follows:

First, while the disease may be sporadic, it frequently appears in epidemics, which in America generally occur in the autumn and spring. (Weis.²⁵) Barthélemy states that it is most frequent in Paris

in August and September. Kaposi³⁰ observes its prevalence in Vienna during the spring and autumn months, apparently dependent upon atmospheric conditions. He further adds that the epidemics are sometimes mild and sometimes severe. It is to be noted that all of the cases which have come under our observation during the past four months, with one exception, have been characterized by the very mildest of subjective symptoms.

Secondly, zoster is endemic in certain regions; thus, in California it is much more common in the valleys, allowing for the population, than in the mountains, somewhat corresponding to the spread of malaria (Keables).³¹

Thirdly, the course of the disease is precisely similar to that of the infectious exanthemata, (Gerne).³²

Fourthly, one attack of zoster seems to confer a degree of immunity. This immunity is by no means absolute. Since Kaposi's classical case, many instances of recurrent zoster have been published; *e.g.*, Hartzell's³⁴ cases, one of which recurred several times, and was bilateral. The majority of the cases of reported recurrence, however, are probably zosteroids. Of sixty cases of recurrence reported, Grindon⁴⁴ believes that only one-tenth were true zoster. It must be remembered that other infectious diseases recur, and further, if zona is merely the occasional efflorescence of intercostal or trigeminal neuralgia, etc., as is at least possible, then it essentially does recur.

Fifthly, as Leloir¹⁴ very pertinently asks: "If zona is to be considered as of strictly nervous origin, how can we explain the fact, that in cases of zona in which lesions of the spinal ganglion were found, and were regarded as the cause of the affection, the posterior spinal roots were healthy—a fact which seems to be completely at variance with the Wallerian theory?"

Sixthly, Jamieson¹² has collected a small number of cases in which the disease appeared in the same family in quick succession. Other writers have reported similarly.

Seventhly, Graham³⁵ reported a case of zoster of one side of the face which attacked the other side on the fourth day and on the fifth day the patient died. The autopsy showed softening of some parts of the brain, with inflammation of the Gasserian ganglion and around a portion of the fifth nerve. Leptothrix threads and bacteria were found in some of the arterioles of these structures.

Eighthly, Unna⁸ expresses himself as follows: "The severity (*i.e.*, the extent of the eruption) is by no means concomitant with that of the nerve affection, and this cannot be looked upon as a sufficient cause of the skin disease. Both are rather coeffects of the

same acute infection." This is borne out somewhat by cases five and seven (*vide supra*), in both of which, with a fairly extensive typical eruption, and with glandular enlargement, subjective symptoms were almost entirely wanting. There is a certain resemblance in these cases to the neuritis of leprosy, which is worth noting.

Ninthly, it has been claimed that zoster has been caused by mental worry, hysteria, and other functional nervous troubles. As against this view, we have the two following facts: In zona, particularly in the early stages, a leucocytosis is demonstrable. In hysteria, there is no leucocytosis, and with the exception of a certain number of cases in which there is an increase in the eosinophiles, the blood count is normal. (Cabot.³⁹) In this connection, reference may be made to the work of Davis,⁴⁰ in which it is demonstrated that uric acid is derived from the nuclei of leucocytes, and, further, that uric acid produces (when in excess) migraine, mental depression, hysteria, etc. Although a specious argument, it is certainly just as plausible to believe that when zoster and hysteria are coexistent, that the hysteria is the result of the zoster (though the leucocytosis and consequent formation of uric acid) as that hysteria was the cause of the zoster.

Concerning the possible value of hysteria as an etiological factor, Van Harlingen³⁷ points out that hysterical neuroses belong to the class of vasomotor affections, to which zona does not; that such cases as Kaposi's lack some of the characteristics of true zoster, and that the so-called "herpes gangrenosus" of hysteria has nothing herpetic about it, but is a simple multiple gangrene.

Tenthly, the occurrence of the eruption upon one side of the body with adenopathy of the opposite side, or general adenopathy; of the eruption occurring upon both sides, of which one of Hutchinson's⁴³ cases furnishes a curious example. Here there was an eruption on the right side of the chest followed by another upon the left side of the forehead. Again, by Howard Murphy's⁴¹ case of eruption on the right side with paralysis of the other; and, finally, by pain or other subjective symptoms in regions remote from the eruption, all give strength to the opinion that zoster is more of a constitutional diseases than is generally admitted.

Lastly, many cases of zoster have been cited as consequent upon injury to peripheral nerves, in which case the anatomical lesion is a centripetal neuritis. This argues the entrance of an infectious agent, because if the wound remains aseptic, as the experiments of Rosenbach and Kast³⁶ have shown, such a propagation of the inflammation above the point of the lesion never occurs. Further-

more, the neuritis is not a continuous one, as it has been proved that an inflammation may exist in portions of the nerve with a tract of perfect tissues between. Such cases are, however, foreign to the issue, for, as a rule, they are not to be classed as true herpes zoster.

The question is sometimes asked why the infection should confine its manifestations to one ganglion or nerve tract. Kaposi disposes of this objection by referring to the known action of arsenic or coal-gas poisoning, which evidences itself in precisely the same manner.

Microscopical Examination of the Lymph Nodes.—As noticed in case No. IV., *vide supra*, two of the inguinal glands were removed with every aseptic precaution and one gland was cut in half, one piece being put at once into formalin, the other into alcohol. The second gland was placed in an aseptic diphtheria-tube and sent to the City and County Hospital with the idea of making cultures of any organism that might be present. Unfortunately there was no culture-medium at hand and the gland was lost.

The portion of the gland that had been placed in alcohol was taken out with forceps and a smear made on a slide, with the result that many refractile threads could be seen and a large number of cocci or spores. The latter stained easily with methyl blue, but the threads were not so stained. But little importance could be attached to these appearances, however, as other vegetable bodies were present, and it is likely enough that the threads, etc., were adventitious. The two halves of the gland were hardened and mounted in celloidin, cut and stained by various methods. In every section, regardless of the staining medium, minute, round, refractile bodies could be seen, which were undoubtedly micro-organisms.

Attempts to find a contrast stain for the thread-like filaments were unavailing. In a number of sections stained by Van Giessen's method, or with picric acid alone, refractile threads could be made out lying in tissue rifts in the cortical portion of the gland. One of these threads was filled with a single row of spores throughout its length. Other threads appeared beaded, and some were simply thin, refractile broken lines connecting two or more deeply stained cocci or spores.

Professor Montgomery and Dr. Ryfkogel of the University laboratory have studied these sections and they agree that the appearances cited are micro-organisms.

Nothing of course is proven as to any causal relationship between the organism and the herpetic eruption, and further opportunities for experiments in this line are to be hoped for.

Pathology.—We come now to another phase of the question of the etiology of zoster, but we can do no more than allude to it at this time, principally because there is need of a great deal of further research and experiment before anything can be positively stated regarding it. Granting that zoster is caused by infection, where is the principal site of the bacterial activity?

The most frequent anatomical findings in zosteriform eruptions have been those of peripheral neuritis. Bärensprung²³ first demonstrated an inflammation of the ganglion on the posterior root of the spinal nerves, but more recent investigations have shown that a neuritis may exist in any portion of the nervous tract without necessarily implicating the ganglion; thus, Dubler²⁴ demonstrated a peripheral neuritis with entire absence of any central disease. Curschmann and Eisenlohr²⁵ found multiple neuromata in the domain of the affected nerve due to a perineuritis, while other observers have found both interstitial and perineuritis. These results have been collected and published by Kaposi²² in the last edition of his text-book. It is of interest to note here that Verneuil²⁶ cured by circumcision a case of chronic preputial herpes in which were found plexiform cylindrical neuromata of the terminal nerve fibrils. Unna's investigations show that the vesicle in zoster is unlike most other vesicles, in that the epithelium of the prickle layer undergoes what he styles a ballooning degeneration, a degeneration similar to that shown, though in a less degree, in the vesicles of variola and varicella. He adds that from the circumstance that the blister, with completely degenerated epithelium, rises sharply from almost normal epidermis, that the presumptive parasites are in the epidermis itself and chiefly exercise their activity locally.

Regarding the paralyses that may occur in the course of zoster, Darabseth²⁷ concludes from the nature of the pain that the paralysis is not reflex but is due to actual neuritis, and Dubler²⁴ found a perineuritis extending to the motor twigs.

The foregoing pathological findings must not be accepted as proving that the essential nature of zoster is a neuritis, for it must be remembered that the vast majority of cases heal completely and no anatomical lesion is to be found.

Furthermore, as Pfeiffer⁴² remarks, the majority of the lesions reported were from fatal cases where there existed complication with other diseases. Moreover, many of these cases were probably zosteroids and not true zona at all.

Sympathetic Origin of Zoster.—Although the eruption is generally in the course of one or more of the cutaneous nerves, there are

cases that cannot be explained by either the theory of peripheral neuritis or by Pfeiffer's theory of capillary embolism.

Dr. Blake⁴⁸ reported a case of zoster appearing on both the dorsal and plantar aspects of the foot, in an area supplied by the internal saphenous, posterior tibial, external saphenous, and musculocutaneous nerves. Similar difficulties are frequently encountered in attempting to refer the distribution of zoster to special cutaneous nerves, as in the cases reported by Drinkwater⁴⁷ and Niedens,⁴⁹ in both of which the reporters are positive that the upper cervical sympathetic ganglion was involved. Gaule,⁴⁶ in his experiments upon the sympathetic ganglia, shows that irritation of the ganglion cells produces a change in them which exerts its action by spreading through the branches of communication with the posterior roots of the spinal nerves, in a centripetal direction, to the spinal ganglion and thence to the cord. The changes produced, which are trophic in nature, do not only occur in the sphere of the nerve whose ganglion is operated on, but over the whole body, and on the opposite side, so that the disturbance in the trophic functions must spread through the central organ of the nervous system to the origin of other nerves.

Were we to assume that the infective agent in zoster attacked the sympathetic ganglia, we would have an explanation for the following facts: First, the failure heretofore to find anatomical lesions sufficient to account for the symptoms; second, the simultaneous occurrence of the eruption upon the skin with symptoms of internal disease (*e.g.*, tachycardia in Case X.), and, finally, the patchy character of the eruption involving nerves of different origin, as in Blake's case.

Head's⁴⁵ investigations add strength to this view, since he finds that tender areas upon the surface of the body (with particular reference to the referred pain of visceral disease) do not correspond to the areas of distribution of the peripheral nerves, and that zoster follows out areas of tenderness corresponding to visceral diseases.

CONCLUSIONS:

1. Among a number of zosteriform eruptions, zoster is a distinct disease that runs a definite course.
2. True zoster is of an infectious origin.
3. The herpetic eruption in genuine zoster is preceded by adenopathy in the neighborhood of the eruption and often by bilateral or even general adenopathy.
4. The eruption is in the nature of a trophic disturbance and

probably the infective agency has a selective affinity for the sympathetic ganglia, and segments of the cord and tracts supplied from these segments, are affected rather than any individual spinal nerve.

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For further literature see reference-lists in Grindon, Pfeiffer, and Unna.

108 Stockton street, San Francisco.

SYPHILIS OF THE KIDNEYS.

By ROBERT HOLMES GREENE, A.M., M.D.

Consulting Surgeon to St. John's Guild Free Hospital for Children; Surgeon to Penitentiary, Blackwell's Island; Visiting Dermatologist to the City Hospital.

New York.

IN writing this article I have endeavored to base my deductions on the recorded results of pathological changes observed in the kidney after death, in individuals suffering from syphilis at the time of death, and in those cases of which syphilis is given as the cause of death. I have endeavored not to allow my views to be influenced by any theories concerning the pathogenesis of syphilis of the kidney, which have been promulgated from time to time.

It is difficult to write syphilis of the kidneys without speaking, in a measure, of the diseases of the kidneys in general, which may not be necessarily due to syphilis—so closely are the kidney diseases produced by the latter related to the former. *Post-mortem* observations tend to show that there are few morbid conditions of the kidney which can in themselves be considered clearly indicative of syphilis, with the exception of gummata of the kidney. These are, it is well known, extremely rare.

There seems to be considerable evidence, however, that syphilis is so prone to cause amyloid changes in the kidney, choosing by a preference one kidney, and that this condition is often properly attributed to syphilis. Such cases have been reported recently by Jaccoud (*Gazette des Hôpitaux*, February 23, 1888) and Banberger (Volkman's *Sammn. Klin. Vortrage*, 1879, 173). In interstitial nephritis, even if syphilis be predicated as a cause, both kidneys are generally infected.¹ Although a small proportion of the entire number of cases showing interstitial changes apparently due to syphilis, have been spoken of by E. Wagner, and also by E. Fuller,

¹ Neuman, in Northnagle's "Sp. Path. and Therapeutics," Wien, 1896.

in his excellent article on syphilis of the kidney, in Morrow's "System of Genito-Urinary Diseases," and others, in which one kidney only has been attacked.

A lobulated kidney is occasionally to be found due to syphilis, the lobulation being caused apparently by the cicatricial tissue bands that have been formed after the absorption of gummata, and which can be distinguished from congenital lobulations by the fact that in the lobulated kidney, due to syphilis, the capsule will be found adherent and dipping down into the cicatricial tissue (T. H. Belfield, "The Disease of the Urinary and Genital Organs").

To facilitate a review of the subject, it may be well to consider the changes in the kidneys for which syphilis is held responsible and causative, either in a direct or indirect manner, under the following heads:

- I. Parenchymatous nephritis.
- II. Interstitial nephritis.
- III. Gummatous nephritis.
- IV. Amyloid nephritis,

in a manner similar to that in which the subject is treated by two recent writers, *vis.*, by Neumann, in his work on syphilis, and White and Martin, "Genito-Urinary Surgery and Venereal Diseases" (Philadelphia: J. B. Lippincott, 1897).

Although this division is made to facilitate an easy review of the subject, there is evidence to show that frequently the simultaneous or sequential occurrence of more than one of these conditions is the general result of previous syphilitic infection.

For instance: Recently Jurgens¹ has described *post-mortem* changes in the kidneys of an individual dying during active syphilis, in which were present fatty degeneration and chronic diffused nephritis. Councilman² has described a case in which, *post-mortem*, the kidneys showed compound lesions, consisting of gumma and amyloid degeneration; other organs of the body being also affected. Compound lesions have been observed previously by many others.

I. *Parenchymatous Nephritis*.—That the parenchyma of the kidney is affected often has been shown by autopsical examination of individuals dying from syphilis. In many instances, clinical symptoms pointing to the existence of parenchymatous nephritis occur, in fact, with sufficient frequency in individuals suffering from syphilis probably to predicate syphilis as the cause. In such cases it seems legitimate to conclude that it affects the kidney in precisely

¹ *Amer. Med. and Surg. Bulletin*, March 1, 1894.

² *Boston Med. and Surg. Journal*, September 6, 1894.

the same manner as other infectious diseases. A case substantiating this view has recently been reported by my friend, Dr. J. A. For-dyce, "On the Occurrence of Nephritis in Early Syphilis; with the Report of a Case Terminating Fatally" (JOURNAL OF CUTANEOUS AND GEN.-URIN. DISEASES," April, 1897). The clinical symptoms are not different from those attending parenchymatous infection of the kidney, due to other causes. When present in syphilis it is, apparently, according to Neumann (and cases recently reported by Lefleur,¹ would tend to substantiate these views), most apt to occur during the first few months, or, at any rate, early in their syphilitic history, while other recognizable syphilitic lesions are present upon the skin or mucous membranes.

The prognosis in parenchymatous nephritis, associated with, or dependent upon, syphilis, is favorable. Parenchymatous nephritis of syphilitic origin must, however, be a comparatively rare affection; otherwise the attention of syphilographers would have been more universally called to it, and recorded cases would be more numerous than they are.

II. *Interstitial Nephritis*.—Interstitial changes in the kidney may occur a comparatively short time after infection; T. Doderlein² has recently reported such a case; or, the interstitial process may be a very late manifestation. Such conditions have been found in young infants by R. Massalongo³ and others, as a manifestation of congenital syphilis. As in ordinary forms of interstitial nephritis, the changes begin first in the renal blood-vessels in the shape of endo- and peri-arteritis, and the formation of connective tissue replacing the parenchyma, is coincident and secondary. The symptoms of syphilitic interstitial nephritis have nothing pathognomonic about them, and the disease can only be diagnosticated approximately from a consideration of the history and by the therapeutic test. The condition is more apt to occur in those who become infected with syphilis late in life, and who lead a luxurious existence.

III. *Gummatous Nephritis*.—Typical gumma of the kidney is a very rare condition. An extensive search of medical literature at the present time, shows record of not more than forty cases. Nevertheless, there is reason to believe that gummatous nephritis occurs more frequently than such reports seem to indicate. The apparent discrepancy is explained by the fact that they, like gumma, in other parts of the body, yield to antisiphilitic treatment. As found, they

¹ *Trans. Assn. Amer. Phys.*, 1896.

² *München. Med. Wochenschr.*, 1896, vol. xliii, p. 976.

³ *Medical Record*, April 18, 1894.

have been usually nodular and known to occur in the cortical substance, the pyramids, and rarely, in the perinephritic tissues. Some interstitial nephritis is necessarily associated with them. As a rule, they attack one kidney only; and they have been found in a kidney in a number varying from one to eighty. They may be present without giving rise to, or they may cause symptoms which can only be explained by their uncommon locations, such as the pelvis of the kidney; or, they be associated with and give rise to inflammation of chronic nephritis. They may be sufficiently large to be recognized as a tumor of the kidney, or they may be so small as to be barely detectible on *post-mortem* examination.

It may be of interest, at this time, to note that J. Israel¹ has reported two cases which came under his observation and in which palpation revealed the presence of a renal neoplasm. This fact, together with the accompanying clinical symptoms, led Israel to make a diagnosis of malignant disease of the kidney. In both cases he performed nephrectomy. Subsequent examination of the kidneys showed that in each case the pathological changes in them were due to syphilis. One of them consisted of a hyperplastic perinephritic inflammation of the connective tissue, associated with interstitial nephritis. In the second case there was a gummatous infiltration of all the kidney tissue. Israel very properly states, from his observation of these two cases, that "the consideration of syphilitic kidney affections has a practical value to the surgeon in relation to diagnosis and operative therapy." A case at present under the observation of the writer, the history of which will be given later on, would seem to indicate that a probable syphilitic gummatous inflammation of the kidney may simulate the symptoms of renal calculi.

The prognosis of gummata of the kidney would be favorable if they were recognized during life, although it would depend, to a considerable extent, upon their situation and the amount of associated inflammation accompanying them.

IV. *Amyloid Nephritis*—In reading the literature on syphilis of the kidney, one cannot but be struck by the continual references to amyloid changes in the kidney found *post-mortem* which are attributable to syphilis. Although it has been denied that amyloid changes have any relation to syphilis itself, yet the autopsical evidence given to confirm this view is, to say the least, interesting. Wagner, out of sixty-three cases of syphilitic kidneys, found amyloid changes in thirty-five. Many other writers have reported similar findings.

¹ *Deutsch. Med. Woch.*, January 7, 1892.

It would appear from the evidence presented, although it is too meager to warrant us in drawing positive conclusions, that amyloid changes in the kidneys due to syphilis are particularly prone to attack one kidney. If such be the case, the prognosis is better in syphilitic amyloid nephritis than in amyloid kidney from other causes. The waxy casts of the urine and clinical symptoms have been found to be similar to those occurring in the kidney where amyloid changes are due to other causes. Catheterization of the ureter in this, as in other diseases of the kidney, by enabling us to make a more direct examination, facilitates the diagnosis and makes the prognosis more accurate. Fatty degeneration is often found associated with amyloid changes; it is probably secondary and consecutive.

The patient whose history is herewith presented has been for a considerable time under the observation of the writer. It is reported as a case of probable syphilitic kidney. Mr. J. R., age forty, married, publisher, came to me May 5, 1896, and gave the following history: Until February, 1892, he had been in good health. At that date he was suddenly attacked with pain in the left loin. This continued for a few hours, and then disappeared. After its cessation the patient passed a large amount of bloody urine. The urethra, bladder, and prostate had always been healthy. Within a few weeks he suffered another attack similar to the one just described. The attacks then occurred with increasing frequency, until finally there was an interval of only a few days between them. He became much reduced in weight and in strength. A surgeon of excellent reputation, having found the bladder and urethra healthy on repeated cystoscopic examinations, made a diagnosis of stone in the left kidney. This diagnosis was concurred in by a man who I believe is justly considered one of the most skilful diagnosticians and pathologists in the country. Three months before coming to me the operation of nephrotomy was performed. He was informed by the surgeon that needles had been passed through the kidneys in many directions, but no stone found. The pelvis of the kidney was also examined. The hemorrhages still continued. Then he was told by his medical advisers of the possibility of malignant disease, and nephrectomy was being considered at the time when I saw him. Finding his inguinal glands very much enlarged, on closely questioning him he informed me that he had, in May, 1891, a sore on the glans penis. Being at that time in the country, he consulted a general practitioner. The latter did not inform him of the possibility of syphilis, though he gave him pills, which he took for some months

These consisted, in all probability, of mercury. In August of the same year ('91) his lips became sore. He complained of inflammation of the throat, and sores appeared at the root of his tongue. These disappeared, and a little later the hematuria described above first commenced. This was in the spring of 1892.

He recalls now that at this time he had copper-colored patches of the skin and desquamation of the palms of the hands, and that for these conditions he had been treated by the country physician. Nevertheless, it did not occur to him that he had had syphilis, and he stated to me that it was on this account that he had not sought other advice, as he had not considered the matter of any particular importance nor taken any treatment except during the few months that he was treated by the physician whom he visited when he had the initial lesion. From his history it did not appear that the possibility of syphilis having had anything to do with the hematuria had occurred to his former medical adviser.

I made a diagnosis of probable syphilis of the left kidney, gave him oil of turpentine, iron tonic, and milk diet. May 18th, no improvement being noted, I instituted a course of mercurial inunctions—about 40 grains daily. After the inunctions had been given almost daily for two weeks the hemorrhages ceased.

When the hemorrhages ceased he stopped the inunctions. I lost sight of him for a time, but I learned afterward that he kept up in the interval the use of the turpentine, iron tonic, and had lived on a diet consisting largely of milk. June 23d the hemorrhages reappeared, and recurred at frequent intervals during the next two weeks, at the end of which time I saw him and strongly advised resumption of the mercury. After four inunctions the hemorrhages again ceased. From this time the inunctions and other antisyphilitic treatment were administered with considerable constancy for the next few months, in which time he gained twenty pounds; had no return of the hemorrhages, and was able to resume his business, which he had been obliged to give up.¹ January 31, 1897, about six months after the hemorrhages had entirely ceased he had an attack of grip, and he had hemorrhages a few times following it. Under tonics, liberal diet, moderate doses of potash, and occasional inunctions, his general condition improved. The intervals between the hemorrhages grew further apart, and his urine, which had been constantly clouded, owing to the presence of mucus, cleared. I have made repeated examinations of the bladder and prostate,

¹ Dr. L. Bolton Bangs, and Dr. D. Hunter McAlpin, who saw him in consultation with me, urged the continuance of antisyphilitic treatment.

and have found them to be perfectly sound, as they have always been. Frequent and careful examinations of his urine have shown the presence of a small quantity of pus, cells from the pelvis of his kidney, bunches of connective tissue and blood-cells varying in amount, being excessively abundant at the time of the hemorrhagic attacks, and there being but few, if any, present in the intervals. No casts have been discovered, nor any indication through his urine of calculi. Repeated examinations of the urine by expert pathologists have failed to reveal the presence of tubercle bacilli. Two examinations of his blood have not shown anything diagnostic. The enlargement of the inguinal glands having disappeared, there is no evidence of his being otherwise unhealthy. His age, and the duration of his illness eliminate the possibility of malignant disease of the kidney. And while tuberculosis of the kidney cannot be absolutely excluded, I have been compelled to make a diagnosis of syphilis of the kidney. Wagner found in some of the cases of what he considers glomerular nephritis, due to syphilis, reddish urine; and when examined with the microscope, blood-cells. The examination of the urine of the two cases reported by Israel gave practically the same results as that of my case, with the exception that there was little, if any, blood present. However, the examination of one of the syphilitic kidneys that he removed shows what he states was a hemorrhagic ulcer. The history of the case, its response to treatment, and the presence of the connective fibers in the urine, would seem to indicate that it is one of gummata of the kidney.

Concerning the treatment of syphilis of the kidney, little needs to be said here. It consists in the treatment of patients by doing everything possible to promote the increase of their general nutrition, as well as the suitable administration of the iodids and mercury. It is well to remember, as has been noticed by Mauriac ("Treatment of Syphilis," Paris, 1896), that salivation is particularly liable to occur in syphilitic cases where the kidney has become attacked, unless mercury is administered in very small doses, the eliminative power of the kidney being interfered with.

Our present knowledge of the subject of syphilis of the kidney may be summed up as follows:

1. In a small proportion of cases syphilis attacks, directly or indirectly, the kidneys, and causes inflammation of the parenchyma and interstitial tissue, or gives rise to gumma and amyloid degeneration.

2. Any one of these conditions is seldom present alone without being associated with one or more of the others.

3. Syphilis shows in the various lesions of the kidney caused by it, except in interstitial inflammation, and even here occasionally a proneness to attack one kidney only.

4. Occasionally, syphilis of the kidney causes symptoms which simulate malignant disease or renal calculi.

47 West Thirty-eighth street.

PRELIMINARY REPORT ON THE USE OF CHLORINATED SODA IN GONORRHEA.

By CHAS. CHASSAIGNAC, M.D.,

Professor of Genito-Urinary and Rectal Diseases, New Orleans Polyclinic; Visiting Surgeon, Charity Hospital, etc.

IT seems almost puerile to venture at this day to present for the consideration of experienced genito-urinary surgeons a remedy for gonorrhea, especially so as this is not entirely a new one or a novel method. My apology is, first, that the agent to be considered seems to have been lost sight of as a possible remedy, inasmuch as it is not even mentioned in such recent works on venereal diseases as "Morrow's System of Genito-Urinary Diseases" (1893), "Taylor on Venereal Diseases" (1895), "White and Martin's Genito-Urinary and Venereal Diseases" (1897); also, that a practical test of it in my venereal clinic at the Charity Hospital, New Orleans, continuously since October, 1895, has demonstrated, at least to my satisfaction, its great utility, and even its superiority to most of the agents generally used as a local application in specific urethritis. Granted that it is not generally known, I may be pardoned for calling attention to anything which may be used with some advantage in the treatment of an affection now recognized to be so powerful for evil and so difficult of cure.

Its chemical properties and therapeutic qualities are such as to recommend it theoretically. I refer to the solution of chlorinated soda, the liquor sodæ chloratæ, U. S. P. Its use in the urethra, as far as I know, was first suggested by Doyen of Rheims,¹ who commenced using it in 1882 or 1883, in conjunction, however, with solutions of corrosive sublimate, by means of a hand-bulb syringe; he made the claim that the Labarraque solution (the French, which is weaker than ours), 1 to 20, was as powerful as sublimate solution, 1 to 2000; while the latter cannot be borne by the urethra, the former is used without difficulty.

It is alkaline in reaction, and this is a desideratum, notwithstanding

¹Traitement de la Bléorrhagie, 1884.

the fact that our bacteriological friends disagree as to the predilections of the gonococcus. Some claim it thrives best in an acid medium; others in an alkaline medium; still others teach that it enjoys either. Assuredly, it is most successfully cultivated experimentally in acid urine; and, clinically, we know that whatever makes the urine alkaline seems to be harmful to the germs, or, at any rate, beneficial to the patient.

It is antiseptic and penetrating, yet not irritating. It is penetrating, from the fact that, unlike many germicides, it does not coagulate albuminoids, and it dissolves the secretions from the mucous membrane. That it is not irritating can be easily demonstrated by touching the conjunctiva with a little *pure* solution, producing a stinging sensation of only short duration. To be sure, if used too strong in an inflamed urethra, it may cause some severe burning; but, used in proper dilution, while not irritating, it retains marked antiseptic properties. It is said in the books to be stimulant and resolvent; considering this with its alkaline and antiseptic properties, it would appear to be almost an ideal application to infected and inflamed mucous membranes.

During the last eighteen months I have used it in nearly five hundred patients. I have tried it in nearly all cases, except those of two kinds: the ones in which, from excessive sensibility, it was impossible to use a hand injection of any kind at the time patients presented themselves, and those whose great chronicity led me to consider it inadvisable, as nothing short of thorough irrigation and dilatation would likely be of service. I have not yet used it to a sufficient extent by irrigation in the latter class of cases to feel justified in reporting upon it. I have prescribed it otherwise at all stages: in cases presenting themselves during the first week of the disease as well as in those coming after many months of more or less unsuccessful treatment. I fail to find the record of a case, or to recall one, not benefited at once. Of course, some responded more satisfactorily than others; usually, the more recent the case the better the application acted, but in the majority it gave greater satisfaction than the applications generally used in the same manner.

Three points are important to remember: (1) the solution should be of good quality—that is, made of good chemicals, and should be comparatively fresh, so as not to have lost its strength; (2) a syringe of sufficient capacity should be used by the patient, one of at least three-eighths ounce, and, in a man with a capacious urethra, even one-half ounce; (3) explicit directions should be given the patient as to how to inject, as otherwise they rarely do it properly.

I resort, as a rule, to dilutions of three different proportions: of the officinal solution, 1 part to 48, 1 to 32, and 1 to 24 of distilled water, which for convenience I denominate respectively the weak, the medium, and the strong solution. In patients coming early, or in whom pronouncedly acute symptoms have persisted, I begin with the weak; if it is easily tolerated, yet not quite sufficient, I change after the first week to the medium. This is usually sufficient. In more stubborn cases, or those of very long standing, I prescribe the strong for a short time, returning then to the medium or the weak. As a rule, however, after resorting to the medium I am able to use it during the entire treatment.

Until the disease is apparently well under control, it is well to have the injections made three or four times a day; then twice a day; finally, when the patient seems to be well, I have continued it once at bedtime for a while, to prevent any chance of relapse. By *well* it must be understood that I mean a total absence of discharge (even to the morning drop) and of burning, and a disappearance of pronounced shreds from the urine after having allowed a reasonable indulgence in alcoholic drinks.

The patient is directed at each treatment to urinate first; to wash thoroughly, preferably with hot water; then to inject, first with the syringe one-third full, next with one-half, lastly with an entire syringe-full, retaining the latter in the urethra for two or three minutes. If, from swelling, the capacity of the urethra is diminished, he is told to get in as much as possible, and, usually, after a few injections, the full contents of the syringe can be received.

Naturally, the usual instructions as to rest and restrictions in drink and food are given. Judgment and experience guide in determining the increase or decrease in strength of the solution; weaker or stronger solutions than those already mentioned, chiefly the former, can be used according to indications or idiosyncrasies, but are rarely needed.

Over and over again patients who have previously used all kinds of injections and internal medications, with only a temporary amelioration of symptoms, return within one week showing a complete cessation of discharge and of pain. The treatment is continued with the chlorinated soda, strength modified according to circumstances, and the cases are frequently discharged after two weeks more. It is rare that an acute, uncomplicated case, in a patient who takes fair care of himself, is not cured in four or five weeks, and a larger proportion are well much earlier.

Frequently have I compared its effect with injections of other

antiseptics and astringents. Beginning with chlorinated soda and changing to another agent, after improvement, but before a cure has been effected, the discharge often returns, and the patient nearly always explains that he is not as well as with the first injection; sometimes he resumes his first injection without waiting for directions. On the other hand, beginning with another agent, and obtaining only poor results, a change to the chlorinated soda would often produce a notable improvement within a few days; this may occur even in cases that have been dragging along for several months.

The rectum bears the solution well, and I have derived very satisfactory results from its use by enema in the rare cases of rectal gonorrhea coming under my care.

Another corroboration of the efficacy of solutions of chlorinated soda in blenorrhagic conditions is furnished by its use in gonorrheal ophthalmia. Dr. Henry Dickson Bruns has, at my suggestion,¹ tried it extensively at his large clinic of the Eye, Ear, Nose, and Throat Hospital, this city. He expresses himself as highly pleased with the results obtained. In this class of cases, the progress of the infection can be so well watched and is so severe that a favorable report would seem very significant.

In conclusion, I desire to emphasize that I do not claim that this medication produces wonderful cures, or is invariably successful to the same degree in the treatment of gonorrhea. My aim is simply to call attention to an agent which, while it appears to be little used, I consider of great utility, and of perhaps more pronounced benefit in the majority of cases of blenorrhagic affections than any other single remedy.

¹ Doyen had already recommended it, *loc. cit.*

A CASE OF XANTHELASMA (?) OF THE UPPER AND LOWER LIPS AND OF THE BUCCAL MUCOUS MEMBRANE.

BY ISADORE DYER, PH.B., M.D.,

Professor of Dermatology, New Orleans Polyclinic; Dermatologist to Charity Hospital, etc., New Orleans, La.

DR. FORDYCE has described¹ "A Peculiar Affection of the Mucous Membrane of the Lips and Oral Cavity." He has been unwilling to designate the condition by any accepted name, but describes the clinical appearances, and has made microscopic sections to show the cell changes. While, in the sections photographed by him and demonstrated in his article, there are no evidences of fatty change in the structure of the tissue, he found connective-tissue involvement and some degenerative change of an unknown nature.

Dr. Fordyce has not found any resemblance in his cases reported to xanthelasma, though the colored plate illustrated in his article and his description of the lesions all suggest the relation.

The pathology of xanthelasma is essentially a connective-tissue neoplasm in the corium, in which epithelial, fatty, and pigment-cells are severally found.

The indefiniteness of the etiologic factor in Dr. Fordyce's cases, and the varying opinions regarding this element in xanthelasma still further argue the possibility of relationship.

Recently, S. K., male, aged twenty-five years, school-teacher by occupation, applied for opinion and treatment of the condition described below:

He was a blond, of excellent physique. Has always been healthy. Father of patient is living. No history of similar affection. Two brothers and two sisters show no signs of like disease.

Up to the incipiency of the condition the patient smoked excessively, and cigarettes for the most part. For over two years and a half he has not used tobacco in any form, believing the condition in some way due to his habit of tobacco.

The trouble began four years ago. At first the lips "looked red, felt sore and hot, particularly when eating greasy food. The lips would swell considerably at times." This swelling and redness was evanescent, sometimes weeks, months, or longer between. At

¹"A Peculiar Affection of the Mucous Membranes of the Lips and Oral Cavity," T. A. Fordyce, M.D., JOURNAL OF GENITO-URINARY AND CUTANEOUS DISEASES, November, 1896.

times any irritation would provoke the swelling. The patient states that often his dentist could not work with his teeth, owing to the swelling of his lips from the irritation produced by the manipulation.

At times there was scaling.

About three years ago, in the middle of the upper lip a few spots appeared, "little white pimples." With their appearance there was no difference observed in the subjective sensations.

The number of the spots gradually increased until six months ago, since when they appeared more rapidly and in larger numbers. There has been no disappearance of any spots.

The lower lip will swell as the upper lip does, but only at the outer angles of the mouth have any lesions appeared.

The cause of complaint on the patient's part, and which provoked his desire for medical attention, was the swelling, more or less constant, and the burning, at times painful.

No factor of diet, or temperature, or season seems to provoke the swelling, except greasy food, as above mentioned.

Examination of the eruption shows both lips swollen and redder than in the normal state.

The upper lip is almost covered with lesions, running up to the vermilion border, and stopping at the line of contact with the lower lip, but appearing again on the under surface of the lip and running up to the juncture of the fleshy lip with the superior maxillary; on either side, the mucous membrane of the cheek shows patches of lesions, which stop at a line drawn sharply back from the angles of the mouth.

On the lower lip there are two small patches of lesions, perhaps a dozen in each, located just at the angles of the mouth.

The individual lesions are not larger than a pin's head in size, most of them are smaller, some even as small as a pin's point. They are level with the skin and mucous membrane.

In color the spots are yellow, almost chrome yellow, and the coloring in all spots is uniform.

In appearance they resemble a milium, but without elevation or distinct consistence. Under pressure there is felt no definite lesion, nor can even a mass of lesions be caught so as to be perceptible between the fingers.

The sensation produced is rather that of infiltration of the tissue so held.

The lesions are round, but resemble, in appearance and in color, the lesion of xanthelasma found upon the eyelids.

On pricking the lesion, blood exuded, but it was impossible to remove them thus, the growth seeming a part of the consistence of the skin itself. Several attempts were made to remove the growths with the same result—namely, a maceration of the area so pricked.

The diagnosis of xanthelasma is ventured purely upon clinical grounds, the case being identical in this respect with Dr. Fordyce's cases. The absence of any elevation or prominence in the lesions, and the apparent identity of the abnormal lesion with the tissue of the skin and mucous membrane argues against any gland tumor, either of fat or other type.

No sections were made.

Most of the lesions were destroyed with the micro-Pacuelin. The result is yet to be seen, as the patient has not since returned, although he has agreed to do so, his residence in the country probably accounting for the delay.

124 Baronne street.

A SCALE OF MEASUREMENTS FOR THE MORE ACCURATE DESCRIPTION OF CUTANEOUS LESIONS.¹

By CHARLES WARRENNE ALLEN, M.D.,

Late Visiting Surgeon at the City Hospital.

THE desirability of a uniform system of description, which may be followed by dermatologists in all countries, need not be dwelt upon. That some system should and can be adopted I am convinced. That the one I now offer is the best that can be devised I do not pretend to claim. The unit upon which this scale is drawn is one-quarter of a millimeter. This is as small as any primary efflorescence which we are generally called upon to describe. Smaller sizes may be referred to as of one-half or one-quarter the diameter of the unit. Five hundred is the largest size shown on the scale, but larger plaques, tumors, etc., may be readily described in multiple of this diameter. The unit I have provisionally named "tetmil," from the first syllables of the Greek *to tetarton*, meaning one-quarter, and millimeter. This would always, in a way, indicate the unit's diameter.

Once adopted by an author, the plate being inserted in his work, the unit's name having been referred to, the lesions can be described simply by number. For example, instead of saying "these lesions varied from pea- to bean-size he would say the size of these lesions

¹Read before the American Dermatological Association, at its meeting, May 4, 1897, at Washington, D. C.

varied from 20 to 30 of the scale; or in place of describing a growth as being of nut-size he would say it corresponded to No. 80, or was of 80-size.

For absolute exactitude of description any given lesions could be measured in millimeters and referred to by number, which would always be four times the diameter. The reader, too, could always calculate in a moment if he desired the exact diameter or circumference of any given lesion.

While the scale is arbitrary in construction it has the advantage of ready transformation into definite known quantities. This also enables anyone to construct a scheme of the scale, or to work by its aid without a scale before him. Again, a short time only is required to familiarize one's self with a sufficient number of sizes to use the scheme.

The numbers 1, 5, 10, 20, 100, 500, are sufficient to keep in mind. Knowing that 1 corresponds to the smallest peppery-grain lesions, 5 to mustard-seed, 10 to rape, 20 to pea, 100 to silver quarter, franc, shilling, and 500 to infant's head. The intermediary numbers are readily suggested or rapidly marked out, or the table can be consulted.

For office, hospital, and dispensary work I believe the chart will be found of great practical utility for the quick and accurate record of the size of lesions.

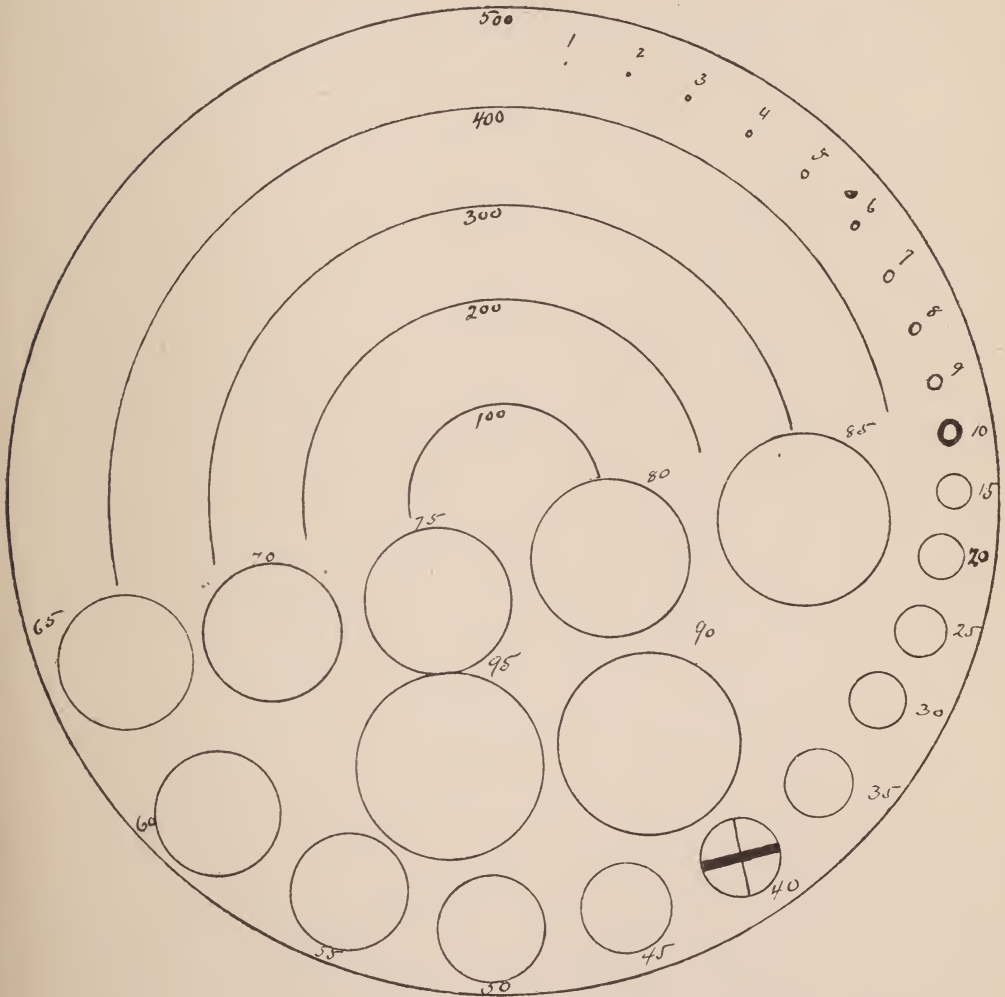
The advantages of a chart showing numbered sizes has the great advantage over the use of the metric system in that a much clearer idea is given even to those most familiar with the centimeter and millimeter scale. It would be impossible to construct a scale with the millimeter as the unit because the whole object of securing accuracy for the smaller lesions would be defeated without constant and confusing reference to fractions, and in the larger sizes centimeters would have to be employed, rendering the whole scheme more complicated.

If the plan I propose does not prove feasible we can at least establish a standard of size for the common objects now employed, and the pin-point, pin's-head, split-pea, etc., will be understood as representing always the same diameter; that is, one corresponding to the average size of these various objects.

One of the best-known European writers recently referred to a growth as large as his fist, but those not personally acquainted with the gentleman might have difficulty in arriving at an accurate idea of the actual size.

Much confusion constantly arises from the use of the term "nut,"

or even "walnut," since the fruit thus named in different portions of the globe varies in diameter from 75 to 150 tetmils. The term "numularis," it seems to me, can well be dropped from our nomenclature, and for international reasons no lesion should be described



as being of any particular coin-size. It is most unsatisfactory for those who have perhaps never handled lire, kreutzers, pfennigs, and centimes, to be constantly told that lesions are of such size, and even when the English speak of three-penny-piece size one does not know whether it is the silver or copper coin which is meant. *Punctatus*

and *guttatus* are likewise unsatisfactory, excepting for use in a most general way.

In a word, the whole system of describing cutaneous lesions as it now exists, is unscientific, inaccurate, and hence must be unsatisfactory.

The following table of approximate equivalents in terms now in common use will give at a glance an idea of the scope and utility of the scale:

EQUIVALENTS.

No. 1.—Punctate lesions: Pin's-point. Red- or cayenne pepper grains. Fine salt. Fine sand.

No. 2.—Poppy-seed.

No. 6.—Pin's-head. Rape. Black mustard.

No. 7.—Large pin's-head.

No. 8.—Flaxseed. White mustard.

No. 9.—Grape-seed.

No. 10.—Coriander.

No. 15.—Hemp.

No. 20.—Freach pea. Head of a tack.

No. 25.—Split pea.

No. 30.—Pea.

No. 35.—Lentil.

No. 40.—Little finger-nail. (Objects with exact diameter of one-centimeter.) The dark, transverse band in scale is one millimeter wide. The light vertical line has the diameter of the unit— $\frac{1}{4}$ millimeter.

No. 45.—Three-cent silver piece.

No. 50.—Gold-dollar piece.

No. 55.—Filbert (vary from 55 to 80). Ten-cent (Dutch). Half dime.

No. 65.—Ten-cent piece. Fifty centimes.

No. 70.—Six-pence. Pecan nut (vary from 50 to 85). Three-cent piece.

No. 75.—One cent. Two pfennig. Hazelnut.

No. 80.—Five-cent piece.

No. 85.—One franc. One lira.

No. 90.—Two-cent piece.

No. 100.—Twenty-five-cent piece. One shilling. Hickory-nut. One sou. One krone.

No. 125.—One penny (English). Fifty-cent piece. English walnut (vary from 100 to 150).

No. 150.—One-dollar piece. Five-france piece. Five-lira piece. Citron. Infant's fist. American walnut.

No. 200.—Twenty-dollar gold piece. Lemon. Child's fist.

No. 300.—Orange. Baseball.

No. 400.—Palm. Adult fist. (Exact diameter, ten centimeters.)

No. 500.—Grape fruit. Pineapple. Infant's head at birth. Coconut.

AN EXPEDIENT TO DETERMINE POSITIVELY WHETHER
A COMMUNICATION EXISTS BETWEEN A FISTULOUS
OPENING IN THE LUMBAR OR HYPOGASTRIC RE-
GION AND THE BLADDER OR KIDNEY.

By ORVILLE HORWITZ, B.S., M.D.,

Clinical Professor of Genito-Urinary Diseases, Jefferson Medical College;
Surgeon to the Philadelphia Hospital; State Hospital for the Insane; Con-
sulting Surgeon to the Hayes Mechanics' Home.

THE surgeon, when called upon to treat a fistulous opening presenting itself near the location of the kidney or bladder, is often in doubt whether or not it be connected with either of these organs, though in many cases the urinous odor accompanying the discharge from the sinus assists in forming a diagnosis.

Frequently when the kidney is implicated the fistulous tract is very narrow, and a very small quantity of urine is allowed to escape, while at the same time a large amount of pus is discharged, making it often difficult to determine whether urine be present or not.

Then, again, a small sinus from the kidney, or an opening leading to the bladder, may be temporarily blocked by a plug of effete matter, rendering it impossible for the urine to secure an exit, and causing the diagnosis to be proportionately obscure.

Recently, while making investigations with methylene-blue, when treating a number of cases of urethritis, I administered the drug in small doses, with the result of tinging the urine a deep-blue color, and it occurred to me that where a fistula exists, and it is doubtful whether or not there is communication with the kidney that the administration of methylene-blue at bedtime might result in exhibiting a blue stain on the dressing on the following morning if the communication were complete.

I selected two patients from whose kidneys calculi had been removed some months prior to consulting me, the result of the operations being fistulous tracts in the lumbar region of each, from which was being discharged pus in small quantities, yet leaving it uncertain whether the discharge was mixed with urine or not. One grain, in capsule, of methylene-blue was administered to each patient. In the morning the urine which was passed per urethra was found to be, in both cases, of a dark-blue color. The dressings covering the fistulous opening in one individual was

stained with a distinctly blue tinge, showing that the fistula had direct communication with the kidney. In the second case no trace of discoloration of the dressing could be seen, leaving the inference that the fistulous tract did not communicate with the kidney.

I likewise administered the drug in a case of fistulous opening following an operation for suprapubic cystotomy, which had been performed a year before the patient came under my observation. The tract was very narrow, scarcely permitting the passage of a very fine probe; there was a very slight discharge. The day following the administration of the methylene the dressings covering the opening were stained blue.

The simple expedient here suggested would seem to render the diagnosis of communication between fistula and the bladder or kidney well nigh certain. It is submitted to the profession with the belief that it may prove a reliable method of arriving at a definite conclusion where doubt exists.

Society Transactions.

TRANSACTIONS OF THE FRENCH ASSOCIATION OF GENITO-URINARY SURGEONS.

SECOND SESSION, OCTOBER 21-24, 1897.

PROFESSOR GUYON, *President*.

Pathological Physiology of Renal Retentions. DRS. GUYON and ALBARRAN.

Under these conditions we must study the action of the kidney: (1) When the renal retention is complete. (2) When the retention is partial from the beginning, and when retention, at first complete, then becomes partial. (1) When renal retention is complete.—Under the influence of increased ureteral pressure there is set up congestion and edema of the kidney; the quantity of urine secreted is less, and this urine contains a much smaller quantity of urea than normal urine. If the retention is prolonged there is progressive atrophy of the renal epithelium and with this the urine secreted contains less and less urea. As the amount of urine secreted in these cases, represented by the amount of urine contained in the sac, is very small, the function of the kidney is practically nil. There are three varieties of complete renal retention, uronephrosis, uropyonephrosis, and pyonephrosis. When the obstacle to the flow of urine is removed, the kidney regains its function more or less perfectly. If the function is quickly regained and the kidney suffers only from a circulatory disturbance, then the gland may regain its normal function. When, however, from longer disturbance irreparable lesions of the parenchyma are produced, the action of the kidney remains forever imperfect to a greater or less degree; if the obstacle to the flow of urine is then removed the kidney acts in a manner analogous to a

kidney in a state of retention, incomplete from the outset. It is rare, even in cases of pyonephrosis, that the kidney has lost completely the power to secrete urine; the function is regained in part, but not to the extent that it is in uronephroses or uropyonephroses. (2) Retentions incomplete from the beginning.—As in the cases of complete retention, the changes in the renal secretion are dependent upon the increase of intra-ureteral pressure and the anatomical changes in the parenchyma.

The thickness of the walls of the renal sac is an important element in the case, the uronephroses and the uropyonephroses with their walled sac secrete a greater quantity and a better quality of urine than the pyonephroses with thick-walled sacs. Whatever the variety of the renal retention we are struck with the real physiological value of kidneys which in appearance are practically destroyed. By means of ureteral catheterization, the catheter left *à demeure*, the authors have studied the comparative physiological value of the two kidneys. First, quantity. In uronephroses and uropyonephroses with thin-walled sacs the quantity has been almost as great as from the sound kidney, some days greater. In the pyonephroses the quantity secreted has always been notably less. Second, composition, studied for sixteen and forty-three consecutive days, respectively, in two cases. The curve of the amount of urea shows: (1) that the sum total of urea secreted by both kidneys in the twenty-four hours is subject to considerable oscillation from one day to another; (2) that the curve of the urea from the healthy kidney is almost perfectly parallel to the curve of the total amount of urea and presents the same oscillations; (3) that the curve presented by the unsound kidney showed oscillations of little importance and without fixed relation to the variations of the preceding curves. The amount of urea from the unsound kidney was sometimes almost one-half, more often one-third or one-quarter the total amount of urea secreted. Sometimes when the sound kidney secreted only a little urea the unsound one would secrete a little more than usual, but this attempt at compensation was never important. The phosphates followed a curve analogous to that of the urea. The chlorids were eliminated better than the urea, in the ratio of 1.5 for the sound, to 1. for the unsound kidney. The potassium salts were less in proportion from the unsound than from the sound kidney. The comparative toxicity of the two urines was made; that from the unsound kidney was more toxic. A study was also made of the comparative power of elimination of medicaments. The iodid of potassium was eliminated with almost equal rapidity by the two kidneys. The subcarbonate of iron, eliminated by both, but more rapidly by the healthy kidney. In studying the passages of methylene-blue in one case of uronephrosis the unsound kidney did not eliminate it; in another, where the iodid of potassium readily passed, there was a very faint coloration from the blue. One point of diagnostic value raised by these experiments is that where the composition of urine from the two kidneys is alike the diagnosis of renal retention must be discarded. On the other hand, this comparative study shows the degree of the lesion of the unsound kidney.

Recurrence after Operations for Calculus of the Bladder. DR. POUSSON (Bordeaux). The author believes that modern lithotripsy, rapid and antiseptic, is gaining ground, while the cutting operation is becoming more and more confined to exceptional conditions. One of the arguments of the partisans of the cutting operation is the frequency of return after crushing. But the author believes that it can be proved that lithotripsy, done according to the rules, permits complete evacuation of the smallest fragments, with less risk than the cutting operation, and the cystoscope besides permits us to control the results of evacuation. In reality, post-operative recurrence is much more apt to be due to the continuance of the general and local

causes of vesical lithiasis than to an overlooked fragment. This is proved by the fact that the cutting operation is no more capable of preventing recurrence than is lithotripsy. Pousson has followed 40 cases. In 35 he had done lithotripsy, in 5 the cutting operation; of the former there were 11 recurrences, in the latter 2. In this second series this relapse is explainable by the existence of a tenacious cystitis which was not modified by careful treatment. In the first series he divides the 11 cases into two categories: the first comprised 5 patients with uric-acid calculi and healthy bladders; the second comprised 6 cases with phosphatic concretions, either pure or having a uric-acid nucleus, and with infected bladders. Of the first category lithotripsy was repeated once, and in one case twice. The interval between the first and second intervention, with the exception of one patient, being two, two and one-quarter, and five and one-half years, precludes the idea that the relapse was due to incomplete operation. Of the 6 cases of relapse, having infected bladders and phosphatic concretions, 4 had the operation repeated once only, 2 had to have repeated operations. These two each had a rebellious cystitis and enlarged prostate, and refused a cutting operation. Pousson believes that these observations argue rather in favor of the crushing than the cutting operation, as they show that even opening of the bladder does not guarantee against recurrence. He believes that for the radical cure of calculus we must look to medicine, which at present is powerless. As regards the phosphatic calculi with infection, has there been found a greater guarantee against recurrence with the cutting operation than with lithotripsy? It is doubtful, according to the 2 cases in the series of 5 cases so operated upon. It is the anatomical conditions more than the infection of the bladder which constitutes one of the indications for cystolithotomy, which should then be performed, not so much to remove the calculus as to remedy the anatomical difficulty. These are: suture of the mouth of a diverticulum of the bladder shutting it off from communication with the bladder, ablation of the median lobe for prostatic hypertrophy, etc.

Castration and Hypertrophy of the Prostate. DR. CARLIER (Lille) reviewed the history of this operation. The results obtained in this operation have been extremely variable. There are cases where incontestably there have been radical cures, with complete restoration of the urinary function, complete atrophy of the prostate, and even cure of the complications. Other patients seem to have regained facility in urination with simple diminution in the size of the prostate. On the other hand, many have shown only the slightest signs of improvement, and the cases of complete failure are also numerous. The operation appears to have a manifestly degenerative action upon the prostate; it acts, probably, also, upon the contractility of the bladder, partly by degeneration, but partly, also, by increasing the power of the organ, before inhibited. It is this which explains, after operation, the rapid return, within a few hours, of spontaneous urination, though incomplete in those who for several years have only urinated by the catheter. The operation is not justifiable in cases of simple dysuria without retention or in cases of acute retention, although in such cases the results have ordinarily been good. Catheterization, well conducted, only should be employed. The mortality is considerable (nineteen per cent.), but may be explained by the general, bad condition of the patient, threatened by grave renal lesions.

It is really impossible to tell in advance the chances of success in castration. The operation may succeed in cases where it is apparently contraindicated, and may be unsuccessful in cases apparently very favorable. It is difficult to explain the retrogression of lesions after operation if we accept the theory of Lanois that hypertrophy of the prostate is due to arteriosclerosis; if, however, we admit that hypertrophy is a hypertrophic cirrhosis

of glandular origin (Albarran) the explanation is easy. According to Motz, sixty-three per cent. of hypertrophied prostates owe their hypertrophy to the abundance of glandular tissue. As to arteriosclerosis, this is not found in prostates where the glandular tissue is very abundant, nor even in those where the glandular tissue occupies half the organ.

How, then, may the surgeon recognize that such an hypertrophied prostate is due to development of the glandular, the muscular, or to the connective tissue of the organ in order to advise upon his patient an operation repugnant to him? Clinically, this question cannot be answered. It is still premature to pronounce final judgment upon castration. In spite of undoubted successes obtained it does not seem to promise a brilliant future, on account of the uncertainty of results and the repugnance awakened in the patients.

Ligature and Resection of the Vasa Deferentia.—This operation, which does not lead to atrophy of the testis, but does cause atrophy of the prostate, is more readily accepted by the patient, but here, also, the results are much more variable, showing both successes and failures. It would seem, however, that the congestive condition is altered by resection of both vasa, and cases are cited in which, while operated upon at time of complete dysuria, they have been able, even at the moment of section of the vasa, to evacuate spontaneously a certain quantity of urine. To explain such a rapid action, it would seem to be dependent upon the action of the nervous system, and that we should admit the experiments of Prjéwalski, who claims to have obtained atrophy of the prostate in dogs by simply resecting the nerves of the spermatic cord without resecting the vas. From this it may be that the results obtained by resection of the vasa are due to the fact that the nerves, also, have been divided. As resection of the vasa deferentia is less to be relied upon than is castration, Carlier does not believe, in spite of the ease of execution and the comparative harmlessness of the operation, that this resection promises results to be compared to castration.

(To be continued.)

THE NEW YORK ACADEMY OF MEDICINE.

SECTION ON GENITO-URINARY SURGERY.

The Sterilization of Urethral Instruments.—By EDWARD MARTIN, M.D., of Philadelphia.

As the sterilization of urethral metal instruments, with the exception of evacuating or catheterizing cystoscopes, is readily and effectively accomplished immediately before operation by ordinary surgical methods, *i. e.*, boiling and flaming them, this paper will be limited to a consideration of the means by which catheters may be rendered surgically clean, and since catheterization has for its sole object the avoidance of infection it is evident that it is not enough to prove that a certain method will make the instruments sterile without spoiling them for use, but other means must be considered by which a properly prepared instrument can be kept clean till its eye has entered the bladder.

The subject is far from being simple because the material from which catheters are made is perishable. Sterilization before introduction is not practicable; hence, provision must be made for keeping them clean. In the case of other instruments this application rarely obtains. Before reaching the bladder the instrument must pass through a canal always teeming with germs, many of which, even in normal urine, are pyogenic.

The ideal condition for catheterization would be a clean, smooth, supple, well-lubricated instrument of appropriate caliber, passed by sterile hands

through a sterile and healthy urethra into a normal bladder. Unfortunately these conditions are never present.

As regards the instrument, it must be so constructed as to be readily cleaned mechanically. This means a clean surface both within and without, and the absence of dead spaces. The blind pouch beyond the eye of a catheter is the most dangerous part of the instrument.

The inner surface of a catheter is almost impossible to clean, obviously because failure attends those who attempt to dislodge germs lodged in the remote recesses and coated by a coating of oil or of animal matter. The concerted efforts on the part of surgeons, should induce the instrument-maker to give us only a solid-ended catheter properly finished within.

The mechanical cleaning of a catheter is best accomplished by warm soap-suds applied immediately after the catheter is used and squirted forcibly through its lumen; green soap is preferred. After soaking, the instruments are washed in hot boiled water, are wiped with a clean towel, dried in an oven at about 100° F. for ten minutes. Proof-cultures were made to determine whether or not this mechanical cleansing would accomplish the desired object.

Sterilization may be accomplished by heat or by germicidal drugs. Dry heat is said to be efficient by Guyon and others, well-made instruments not being injured by a temperature of 140° C., provided they are perfectly dry when put in and are not allowed to come in contact with each other or with the surface of the oven. Trials of this method require special apparatus, and are, at the best, unreliable.

Steam is efficient, but an exposure of fifteen minutes in an Arnold's sterilizer so blisters gum instruments that they could not be used. Boiling we found perfectly satisfactory. Soda solutions cannot be used, since it causes breaking of the gum coating of the catheters. In using water and continuing the ebullition for not more than five minutes gum catheters are not sensibly affected as to surface and gloss. The rubber catheter seems to be benefited by this treatment.

The advantages offered by this method are its simplicity, its thoroughness, and its general applicability.

Of the various drugs, carbolic acid and alcohol both destroy the smooth finish of gum catheters and are neither a sure nor a quick means of disinfection. The germicidal and disinfecting soaps offered a particularly promising field for investigation. Soaps incorporated with mercurial salts and resorcin soap were selected; cultures made from either the outer or inner surface of instruments thoroughly washed in these soaps produced as prolific and multiform vegetations on an artificial medium as did cultures prepared from catheters cleansed with ordinary green soap.

Exposing catheters to the vapor of mercury for twenty-four hours in a glass box, and then making cultures from both the inner and outer surface, resulted in the growth of many bacilli and cocci.

Sterilization by paraform, a polymerized formic aldehyde, in a metal box, as advised by Janet, was found to be satisfactory, but before using, the instrument should be flushed out with sterile water, on account of smarting caused by the drug.

The next question for consideration is as to how these instruments may be kept sterile till their ends enter the bladder.

Sterile lubricants, clean hands, clean glans and meatus, and a sterile environment are necessary. For the hands he recommended the wearing of sterilized gloves. The penis is passed through a hole in the center of a sterile towel and the glans is cleaned by a tampon of cotton moistened in alcohol, after one soaked in bichlorid of mercury (1-1000) has been employed. The meatus is syringed out with a stream of sterilized salt solution

or a mild antiseptic, a gravity-bag and glass nozzle being used. Cultures to determine the efficacy of washing showed the number and variety of the colonies to be distinctly less than when no such process had been used. They failed to find a lubricant to act as an efficient destroyer of urethral germs.

The silver salts argonin and argentamin were powerless. They were too thick and seemed to irritate. The two lubricants which seemed most serviceable were albolene and a twenty-three-per-cent. solution of boroglycerid. From the venereal dispensary was taken one of the boroglycerid jars which had been used for weeks in the daily clinics without having been sterilized. The cultures showed very few cocci and no pathogenic microorganisms.

To make a clean catheter pass through a clean urethra without contamination is an impossibility. The number of germs which the urethra contains lessens as you go deeper, but they are constantly present and are often pathogenic. The risk of infection is greatly reduced by choosing clean instruments, as experience has shown.

Ten trials were made, using at each instrumentation a pint of sterile salt solution, and cocci and bacilli were always found in the cultures taken from the instruments after using, but compared to the cultures from instruments passed without flushing they were few in number.

By means of antiseptic irrigations they were able to pass a catheter to the bulbomembranous junction, withdraw it, and show by cultures from its outer and inner surfaces that they remained sterile. The solutions used were argonin and argentamin, 1-1000. But slight irritation was produced by these solutions. It is apparent that by flushing the urethra during catheterization the danger of infecting the bladder can be greatly lessened. There is danger in using potent antiseptics; they may disinfect the catheter but they are liable to cause irritation. It has been the speaker's custom to eschew the use of lubricants when introducing a hollow instrument into a non-infected bladder, which, from congestion incident to long retention, foreign bodies, or other cause, has become vulnerable. After having cleansed the glans and meatus, a sterile catheter is attached to the glass nozzle of a fountain-syringe and salt solution, or a silver lotion is allowed to flow through it under a pressure of about three feet while the instrument is being introduced. Thus it aids in facilitating the introduction of the instrument, and also is accompanied by less trauma since the pressure of the fluid separates the urethral walls and so allows a catheter to pass more readily.

The reader of the paper then discussed the methods of sterile catheterization adapted to the use of laymen, since the question of an easy method, which is likely to be applied by men of moderate intelligence, is constantly presented to us for solution. He offered the following suggestions as applicable to men who catheterize themselves:

1. They should use a soft catheter with solid tips of a size and shape which is found by the surgeon to enter the bladder with ease and with the least force, and to produce the least pain. This will usually be a coudé catheter of medium caliber. The obstruction in prostatics is usually due to a ridge in the urethra, or a sudden turn in its course, and the flexibility required to permit the instrument to slip over or around the obstacle must exist close to it, and these coudé catheters have proved the most satisfactory that the speaker had used. Advantages inherent in the soft catheter are durability, resistance to boiling and to chemical agents, smoothness and internal finish, thus making them readily cleaned, and, finally, cheapness.

The disadvantage is that they are sometimes too flexible to overcome muscular resistance.

2. The patient usually secures twice as many catheters as he requires for the twenty-four-hours' use. He may then sterilize them by boiling or by the paraform apparatus. If the catheters are boiled they should be wrapped in sterile fabric, the number required for each day in one envelope, each fold of which contains a catheter. If a paraform box is used each shelf may contain a number of instruments needed for one day and the catheter may be kept and transported in receptacles filled with formic aldehyde vapor. Thus it may be carried in a cane or in a long flat box, which may be fastened to the flap of the coat. In patients who have to use the catheter but once at night and morning, and who have sterile bladders, the entire technic of instrumentation and introduction should be insisted on, urethral irrigation being regularly employed. This implies the possession and proper use of the formol, or paraform, or steam sterilizer, a gravity-bag, glass nozzle which fits the lumen of the catheter, bichlorid solutions, alcohol, sterile towels, and sterilized boric-acid or normal salt or silver solution. The question of convenience or expense should be entirely subordinate to the importance of technic and to every measure against infection.

From what has been said it will be gathered that the soft urethral instruments may be successfully sterilized in a number of hours, but that the best methods, since they are simple and efficient, are by boiling them for five or ten minutes, and by exposing to formic aldehyde for twenty-four to forty-eight hours. Catheters which have been thoroughly cleansed by soap and water immediately after having been used are sterilized by shorter exposure, and it has been shown that urethral irrigation is an important means of lessening the danger of vesical infection. As a still more important means, though it has not previously been dwelt upon, is the skilful, gentle use of the properly selected instrument, and the avoidance of vesical congestion, using a catheter with sufficient frequency to prevent vesical distention.

Discussion.—DR. SAMUEL ALEXANDER opened the discussion by thanking Dr. Martin for his paper. He said that the importance of the discussion of this subject was enhanced by the neglect that it had received at the hands of the profession, in spite of the fact that all were of the opinion that the sterilization of surgical instruments is of the first moment.

While the speaker agreed substantially with every statement made by Dr. Martin, yet, as a clinical surgeon, he was forced to say that some of the remarks were of a Utopian character—what we should like to see rather than what can be carried out in our everyday work.

Dr. Alexander confined his remarks to the modern methods employed in the sterilization of the urethral catheter. He thought it much easier to carry out a system of sterilization in the hospital than in private practice. At Bellevue he made a number of investigations and experiments in this line, endeavoring to find a method of sterilization which would be simple, yet thorough, and the results were as follows: In the first place the instruments are carefully selected and are of the best class, which is of the utmost importance in order to get proper sterilization. Among these is included the webbed catheter, which it seems impossible to dispense with at present, even though Dr. Martin says it is most difficult to sterilize. The speaker used the following method of sterilization: After washing the catheter in hot soap-suds and rinsing it, the instrument was first injected with a five-per-cent. nitrate-of-silver solution, and then a sterilized salt solution, after which it was dried and put away. The chief objection to this method is the staining of the hands of the attendants who inject the silver solution. Catheters sterilized in this manner were examined for bacteria at the Carnegie Laboratory, and the results were not quite as satisfactory as he had hoped that they would be. While many were found to be

sterile, others showed the presence of numerous microbes. We have had the same results with every other method of sterilization. The clinical results were always better than we were led to expect that they would be by the pathological reports. It is a great mistake for a practical surgeon to depend absolutely upon the laboratory report if his surgical experience is not in accord with it.

The next method of sterilization is the one employed at Bellevue at the present time by the speaker, and it has proven quite satisfactory: The catheter, immediately upon being used, is thrown into a basin of boiling water; they are afterward collected, washed in hot soap-suds and then boiled. There are a number of webbed catheters on the market which will withstand boiling for five or ten minutes, and experiments show that this will fulfil the laboratory requirements. Dr. Robertson, the house-surgeon, reports that during the last six months there were only five cases of infection from the use of the catheter in Ward Fifteen, which bears out the assertion that the method there used is fairly reliable. That method is not applicable to a patient who is using the catheter for the relief of prostatic obstruction, as it would be too difficult for him to carry it out.

Last summer the speaker procured a Janet sterilizer for paraform, which he has since used in his office. The results are not entirely satisfactory. If the catheter is an old one, it takes longer than twenty-four hours to sterilize it; new catheters can usually be sterilized in eighteen hours. It is a very convenient method, and certainly the most perfect according to laboratory reports. The one objection to it is that it is necessary to wash the instruments after removing them from the sterilizer, as the gas which accumulates on the outside is liable to cause considerable pain of a stinging character. Unless they are washed in a sterilized solution they might as well not have been sterilized in the first place.

Catheters that cannot be boiled can be immersed in very hot water after they have been washed in soap-suds and water.

So far as sterilization of the urethra is concerned before the introduction of a catheter, the speaker advocated and practised it, both in hospital and private work. However, he has abandoned it and finds that he gets just as good results now as he did formerly; he, therefore, relies upon clinical observation, and does not wash the urethra unless there is severe urethritis and the canal contains pus. The meatus should always be cleansed before a catheter is inserted.

Dr. Alexander is of the opinion that trauma is sometimes the chief factor in the production of infection, and that dexterity in the use of the catheter is very essential. He gives the following suggestions; (1) Have your catheter as clean as possible. (2) Use it as gently as possible. (3) Get a good, smooth catheter, not too stiff. Most of the webbed variety are unfit for use until after they have been soaked in hot water and manipulated for a time with the hands.

Dr. Alexander thought that every prostatic should be instructed regarding the care of his catheter. Where there is obstruction and residual urine, and the bladder is not infected, every effort should be made by the surgeon to see that the catheter used is properly sterilized and that catheterization is performed at regular intervals. If this is done the patient can be carried through what used to be considered the dangerous period without any danger of infection to speak of, and his urine will remain clear as long as these precautions are followed.

The speaker again thanked Dr. Martin for his paper and his courtesies in coming.

DR. WILLY MEYER expressed himself as keenly interested in the paper, and considered the topic very timely and important to the general surgeon,

the specialist, and the general practitioner. No doubt many wonder why catheterization produces such different results in different cases. For instance, a prostatic, without giving any particular attention to the aseptic condition of his catheter, may catheterize himself hundreds, and even thousands of times without producing any other result than a slight catarrh of the bladder. How often does a nurse catheterize a woman just after confinement, performing the operation without any aseptic precautions, and yet producing no untoward results? Then again, there are times when the nurse or physician will infect such a woman, in spite of every precaution, while passing a catheter. This indicates that the infection depends, to a certain extent, upon the virulence of the micro-organisms and the resisting power of the individual.

Dr. Meyer agreed with Dr. Martin that the best way to sterilize elastic catheters is by means of formalin or formaldehyde. There is now in the market an apparatus which has greatly simplified this method of sterilization. It consists of a revolving apparatus with a number of glass tubes into which the instruments are placed, and at the bottom some formaldehyde is placed, together with some calcium chlorid; the latter is to keep the air dry. Dr. Meyer has not tested the value of this sterilizing apparatus bacteriologically, but clinically it has been very satisfactory.

The speaker sterilizes ureteral catheters in the same way, and in spite of the fact that a writer in Berlin published a paper about a year ago condemning ureteral catheterization with gum-elastic catheters on the ground that such instruments could not be properly sterilized, he is convinced that by means of formaldehyde vapors such instruments are rendered absolutely sterile.

Metal instruments and rubber catheters are easily and thoroughly sterilized by boiling in plain water for five or ten minutes.

Some patients, in spite of the greatest precaution in the selection and preparation of instruments, will develop surgical urethral fever after the insertion of a catheter into the bladder. The entire urethral tract is full of micro-organisms and the bacillus coli communis is the one which chiefly does the mischief. It wanders from the rectum into the folds of the urethra, and after an abrasion or slight irritation of the mucous membrane it gains an entrance into the circulation. According to Dr. Meyer this is the chief cause of urethral fever. It not infrequently follows the performance of cystoscopy, because the cystoscope cannot be disinfected as readily as other urethral instruments. It cannot be boiled for five minutes as other instruments can. To obviate this difficulty Nitze has proposed a special sterilizer for this instrument, in which it can be hung for five or ten minutes and subjected to steam generated by the heat from an alcohol lamp. The speaker's experience with this apparatus has been extremely unsatisfactory, as a number of cystoscopes have been rendered useless by it. This is a serious matter, both as regards time and expense, as the instruments have to be sent to Germany to be repaired. It is important to know, therefore, that the vapor of formaldehyde does not injure these solid instruments.

In recent years Dr. Meyer has obviated the occurrence of urethral fever after cystoscopy by thoroughly irrigating the anterior and posterior urethra after filling the bladder several times and emptying it through a catheter; after the third time the catheter is removed and the patient instructed to empty his bladder voluntarily. If the posterior urethra is irrigated immediately after cystoscopy has been performed and the patient is told to empty his bladder as completely as possible, he is apt to throw off all the germs that have entered. The speaker has used this method for the past few

years, and has performed cystoscopy hundreds of times without any harm to the patients.

As regards catheterization of the ureters: We are justified in introducing a catheter into the ureter, but not up to the pelvis of the kidney. Two or three inches should suffice. That is quite sufficient for our purpose, and if any micro-organisms have been introduced by our instrument the urine descending from the kidney will be very apt to wash them back into the bladder and thus prevent infection of this tiny canal.

DR. R. W. TAYLOR said that he had been asked to confine his remarks to the denizens of the urethra—the flora of the urethral canal. He thanked Dr. Martin for his valuable paper, which he feared embraced an over-elaboration of this subject which is impracticable in the majority of cases, and that the same results can be obtained in many cases by the simpler methods mentioned by Dr. Alexander, whose views closely coincided with those of the speaker.

Much is known of the flora of the urethra, but much of this knowledge is still difficult to formulate. Melchoir has shown that a common inhabitant of the lips of the meatus is the bacterium coli commune, that disturber of the peace in so many regions of the body, making trouble and even causing death. The anterior urethra, to the extent of about an inch from the meatus, is the seat of more micro-organisms than any other part of the canal, excepting the bulb, and for that reason it is a good plan in all cases to thoroughly irrigate these parts. Going further down the urethra we find cocci and micro-cocci, and there are competent observers, among them Legrain and others, who even claim that the gonococcus, under normal circumstances, is a harmless denizen of the urethra, and only becomes hostile when certain pathological changes occur in the mucous membrane of the canal.

In suppurative conditions of the urethra a vast number of microbes have been found. Dr. Taylor saw such a case not long ago which was due to the imtemperate use of the endoscope. A bacteriological examination of the discharge was made by Dr. Prudden, who found the bacterium ureæ, which we all thought was a perfectly harmless parasite. In some cases the urethral suppuration has been traced to the staphylococcus and streptococcus by competent bacteriologists. These facts led the speaker to believe that there were many saprophytes in the urethra, which, under altered conditions, may lose their innocuous character and become hostile. Many a man has been accused of having had his urethra infected by germs from without, whereas, the damage was really done by the introduction of a catheter or other bungling manipulation, irritating the posterior urethra, where we find the microbes of suppuration and also the bacterium coli. In some cases we find the bacillus fœtidus, which was supposed to be carried in from without.

The above is about all that could be said in a definite way on this branch of the subject. It should always be borne in mind that every man carries around with him the agents of infection in the urethral canal, and perhaps in the bladder.

DR. L. BOLTON BANGS thought that there was little more to be said on this subject, but he wished to express his gratitude to Dr. Martin for his paper.

The speaker agreed with the most that had been said. His experience, however, had taught him that in dealing with this class of patients the directions in regard to the use of the catheter must be simple if we hope to have them followed; this applies particularly to prostatic cases—old men, who require continual catheterization—and even to medical men who are

so unfortunate as to have prostatic enlargement and who find it necessary to resort to artificial means in order to empty their bladders.

The method of rendering catheters and other instruments aseptic by boiling is so simple that it will be complied with by most patients; others will simply immerse the catheter in boiling water. Dr. Bangs' experience with simple boiling had not been entirely satisfactory, and he has been experimenting with some of the vaporizing methods, hoping to arrive at an easy and rapid plan which can be resorted to by both his patients and himself. We all recognize the value of absolute surgical cleanliness, if it can be obtained, but we must recognize also the varying degrees of vulnerability of the tissues in different individuals. Dr. Bangs had one patient who carried his catheter in his hat and used spit as a lubricant, and yet that man lived to be eighty odd years, and the only result of his utter lack of cleanliness was that his urine was slightly purulent. Other patients, on the contrary, possess tissues which are highly vulnerable, and such must be protected from infection in every possible way.

DR. A. J. C. SKENE regretted, that on account of the peculiar acoustic properties of the room, he was unable to hear all of the paper and would refrain from discussing it lest he should do Dr. Martin an injustice. He wished to say that while he recognized the importance of sterilization of urethral instruments, he felt that we laid too much stress on that branch of surgery. He was confident that an endless number of sins, surgically speaking, were committed in the name of sterilization. In former years cystitis was exceedingly common in cases where it was necessary to use the catheter, especially if it was necessary to continue its use for any length of time, and when aseptic surgery came into vogue we had hoped to have been relieved of such an untoward result. It is a disappointment to find that the number of cases of cystitis remain undiminished just so long as we employ the old metal catheter, and that it did not seem to make any difference whether the instrument was clean or filthy. Since the metal catheters have been abandoned the number of cases of cystitis following catheterization has been lessened fifty per cent.

The speaker has found that the cystoscope and endoscope can be satisfactorily sterilized by exposing them to the vapor of formaldehyde. He always employs the soft rubber catheters which are rendered aseptic by boiling. Boiling for ten, fifteen, or twenty minutes renders them absolutely sterile, and the speaker was acquainted with no other method which answered the same purpose. After boiling, he places them in a glass tube properly sealed. When an instrument has been carried about and exposed to infection, it may be again rendered sterile by throwing ether vapor through it, and then placing it in a sterilized solution, such as five-per-cent. carbolic-acid solution or 1-2000 bichlorid-of-mercury solution. The ether may also be employed in sterilizing the lumen of the cystoscope or endoscope. The speaker could not say that this was a certain way of killing all the germs, but from clinical observation he is confident that it puts them to sleep, so that they will give rise to no trouble. The great difficulty is in cleansing the urethra and the mouths of the ureters. It is rather a pathetic sight to see a surgeon spend a long time sterilizing a catheter or sound, and then pass it through a urethra filled with all kinds of germs: physiologic, pathologic, and pathogenic. The same is true of the mouths of the ureters. It is well to endeavor to cleanse these as thoroughly as possible by first filling the bladder with some sterile solution, which is left there for sometime, and then, after emptying it, to sponge off the mouths of the ureters.

Even if germs are carried into the bladder—unless they are the tubercle bacilli or the gonococci—they will do no harm if the mucous membrane is free from abrasions. No matter how sterile an instrument is, if the urethra

or bladder is wounded by its passage a cystitis or a urethritis is likely to be set up.

DR. F. R. STURGIS thought that the most important point to emphasize was cleanliness, for sterilization means cleanliness. He had very little to add, and would approach the subject from the clinical rather than from the bacteriological standpoint.

Diseases of the genito-urinary tract can be divided into acute and chronic, and, as regards their origin, into those affecting the urethra, prostate, seminal vesicles, and bladder, and those affecting the ureters and kidney. In cases where there is a discharge it is important to learn its origin and character—whether it contains germs which are innocuous, or those likely to cause trouble. It is almost impossible to render the urethra absolutely sterile, and this is also true of the instruments used. No matter what we do some bacteria are left, and we should draw the line between those that are harmful and those that are innocuous.

Although we cannot absolutely sterilize the urethra and our instruments, there is no reason why we should not do all that we are able to do. Because some one has lived to the age of eighty years, in spite of the fact that he used spit as a lubricant for his catheter, is no reason why we should run such a risk. The speaker thought that in these cases it was best to instruct the patient to pass his water, and in this way the bacteria would be washed out by the stream. In addition to this the double irrigating catheter may be used, or a deep syringe. A weak solution of argonin makes an excellent irrigating fluid.

An excellent lubricant is a borated solution of glycerin or oil; the glycerin or oil is first thoroughly heated with dry heat in a sterilizer, and then as much boric acid is added as will take it up. This is put in a sterilized glass bottle and at the time of operating the necessary quantity is poured into a test-tube.

DR. EUGENE FULLER felt that the question of the sterilization of instruments was still in its infancy. Medical literature shows a half-dozen arrangements devised for that purpose during the past six months, and the probability is that some bright mind will some day hit upon some simple method which will be more practical than those in vogue to-day.

The receptivity of the patient to urethral infection is a most important factor in these cases, and one that should be kept in mind in making a prognosis. In some cases the slightest traumatism is liable to be followed by urethral fever, while in others no such ill effects follow. The deep urethra is a great barrier against germ infection, and if the genital apparatus is perfectly healthy, and there is no seminal vesiculitis, it is very rare for that tract to be infected by an instrument unless a traumatism is produced. Probably every one who operates in this field has seen an epididymitis following the use of instruments. In nine cases out of ten such a complication might have been avoided if the surgeon had taken the precaution to ascertain beforehand the condition of the seminal vesicles and ducts by passing his finger into the rectum. If such an examination shows the parts to be tender and to have more or less tumefaction, an instrument should never be passed through the deep urethra. If the seminal vesicles and ejaculatory ducts are in a state of inflammation, any irritation in that region is very apt to cause the inflammation to extend to the testicles. It would seem that the prostate is in comparatively little danger of infection from that source. You may find its capsule congested and inflamed, but the focus of inflammation is back of the prostate and primarily in the region of the ejaculatory ducts.

DR. E. L. KEYES wished to add his testimony to that of the other speakers in laudation of Dr. Martin's paper which had so ably elucidated the theo-

retical side of this question. The discussions had given more attention to the practical side, and this justly.

Dr. Keyes considered that the two most important points in connection with this subject were, first, to avoid the infliction of traumatism, and, second—which was mentioned by Dr. Meyer—to instruct the patient to empty his bladder after instrumentation, thus getting rid of whatever germs had been carried in. If we produce a trauma in the urethra or bladder we prepare the soil for the germs that are already there, or for those that have been carried in by the instrument.

The speaker had used nearly all the new methods as they arose and expected to continue in this way, but his chief reliance was on hot water, with occasional diversions to solutions of nitrate of silver, bichlorid of mercury or salicylic acid. These are the elements upon which he would probably continue to depend, on the principle that it is hard to teach an old dog new tricks; it would probably be a mistake to change now, and his results do not seem to make such a change necessary. He hoped that efforts like Dr. Martin's would instil into younger members of the profession habits of cleanliness that would become a second nature. As time goes on methods of sterilization will, no doubt, become simpler, until we reach the Utopian condition that we are all striving for. For irrigating the urethra, particularly where an operation is to be done, a solution of salicylic acid is very good, but after the use of instruments silver nitrate is preferable, in a solution 1-500 or weaker, so that whatever dirt may have been stirred up in the bladder may be neutralized and washed out.

DR. R. GUITERAS thought that all were willing to agree that Dr. Martin's paper had been interesting and instructive, and the discussion most able and scholarly.

The speaker thought that while Dr. Martin's methods were probably the best that could be adopted, at the same time there was a great deal of technic connected with them. He briefly stated his own methods: Simply boiling in soda solution is sufficient for ordinary urethral sounds. The sterilization of catheters is a more difficult matter. In every case where it can be employed the soft rubber catheter is the best, and the quality of these instruments is gradually improving, so that in time we may use them entirely.

After using a soft rubber catheter Dr. Guiteras has it flushed and scrubbed, then boiled and put in a jar of carbolic-acid solution. Gum and woven catheters are more difficult to handle. Some of them are very badly finished and contain crevices under the coat of varnish which renders them very brittle.

After using a woven catheter it is well to cleanse it in the ordinary way and then boil it five minutes; it is then dried and put in a long vial sealed with rubber capping, or it is simply laid on a sterilized glass shelf. The new method of sterilizing catheters by means of formaldehyde is really the best.

DR. FERD. C. VALENTINE said that if the exhaustive paper, which had afforded him so much instruction, needed verification, it could be found in recent French and German literature. A glance shows the essays so numerous, that even haphazard reading produces valuable articles. Among these Tano of Tokio (*Centralblatt für die Krankheiten der Harn- und Sexual-Organen*, vol. vii, No. 9) found sixteen cocci, ten bacilli, besides the staphylococcus pyogenes aureus and staphylococcus cereus, albus in urethral filaments. Posner and Lewin (*idem*, vol. viii, No. 1 and 2) in studying elastic catheters, conclude that formalin and trioxymethylene is borne equally well by all catheters, but that German catheters made by Rusch withstand superheated steam better than all others. Kuttner (same

journal, vol. viii, No. 4) rather vehemently advocates his steam apparatus, which he asserts has been more or less successfully modified by Frank, Groszlik, Zweifel, and others. Melchoir of Copenhagen (*idem*, vol. viii, No. 5) considers the bacterium coli commune "the most frequent cause of purulent diseases of the urinary apparatus." Wolff (*idem*, vol. viii, No. 6) experimented with formalin-glycerin, washing catheters with boric acid before use. This proved quite satisfactory in laboratory tests. The author, however, does not claim to have solved the question of catheter sterilization. Alapy (*ibidem*, vol. vii, No. 10) describes a convenient tube to maintain catheters sterile. Dr. Vanderpoel has shown a Janet's apparatus, which the speaker uses for the same purpose, and as yet has had no case of infection to record. Bazy (*Gazette des Hôpitaux*, May 23, 1897) reports two extreme cases, which perhaps are not as rare as may be generally imagined. Both cases had phosphatic calculi, formed about hairs. These hairs had been dragged into the bladder in catheterization. Beck ("Manual of Surgical Asepsis") says that the objects in view are not attainable by sterilization of instruments alone; the urethra must be cleansed as well. He acknowledges, however, that this is uncertain, because of the numerous bacteria which the normal urethra harbors.

In this connection the speaker showed two devices, which he thought assisted materially in the object sought. Scharff's cylinder for urethscopic tubes holds them not only conveniently after boiling, but keeps them submerged in a three-per-cent. carbolic solution until required. They are then quickly flamed and anointed with sterilized glycerin before insertion into the urethra.

Nitze's sterilizer for cystoscopes, which Beck was the first American surgeon to describe, is not as complicated an instrument as it appears. It can easily be driven to a temperature of 100° C. and beyond, while the instruments suffer no damage therefrom.

Yet, as has been often said this evening, sterilization of instruments alone does not suffice. The urethra must as far as possible be cleansed of its infectious inhabitants. Perhaps the immunity of Dr. Valentine's patients might be attributed to the fact that he invariably irrigates the urethra or the urethra and bladder, after even the slightest instrumentation of these organs. The speaker thinks that the absence of urethral fever in his practice is due to this precaution. The ease with which this is done is manifest when one is acquainted with the latest form of urethral and intravesical irrigator, which Dr. Valentine had the honor of demonstrating at the Hôpital Necker in Paris, on September 15th of this year. Its simple form, cleanliness, and cheapness, commended it to such a degree that M. Janet adopted it for use in his practice. With such endorsement the speaker felt warranted in suggesting it as the most convenient manner of approaching that urethral asepsis which sterilization of instruments alone cannot procure.

Dr. Martin, in closing the discussion, said that his purpose had been, not to complicate the subject of the sterilization of urethral instruments, but to simplify it. The closing sentences of the paper were meant to convey the idea that the most efficient means of accomplishing the object in view was the skilful use of proper instruments, and that statement was corroborated by most of the speakers. Dr. Martin had also expressed his preference for the soft rubber catheter.

Dr. Martin had recently seen a doctor who had developed retention of urine after an operation for hemorrhoids, and whom he had informed that catheterization would be necessary. He objected very strenuously and upon inquiring the reason said that he possessed a silver catheter which had been used upon both his father and grandfather, and both had died

within two months after its introduction, and he expected the same fate. He was catheterized and lived.

Dr. Martin had listened to the discussion of this subject by men whom he had considered as leaders in medical thought with much interest. He expressed himself as feeling like a ship that has gone into Newcastle in ballast for coal and come out with a full load. He thanked them all for their courtesy and kindness.

INTERNATIONAL LEPROSY CONFERENCE.—BERLIN, 1897.

GENERAL CONCLUSIONS.

At the close of the debates of the International Leprosy Conference, Berlin, 1897, the secretaries have the honor to present the following short report of the general conclusions of the conference.

As might be expected, a considerable portion of the discussion has related to the bacillus lepra, which the conference accepts as the virus of leprosy, and which for upwards of twenty-five years has been known to the scientific world through the important discovery of Hansen and the able investigations of Neisser.

The conditions under which the bacillus grows and develops are still unknown, as well as the way of its invasion into the human system; but, from the discussions of the conference, it seems probable that an unanimity of opinion will soon prevail in reference to its modes of subsequent dissemination within the human body.

Very interesting observations have been brought forward in connection with the elimination of the bacilli in large quantities by means of the skin and the nasal and buccal mucous membranes of lepers; it is desired that such observations be confirmed where opportunities occur.

The question is of very great importance to those who are entrusted with the care of the public health, as leprosy is now acknowledged to be a contagious disease.

Every leper is a danger to his surroundings, the danger varying with the nature and extent of his relations therewith, and also with the sanitary conditions under which he lives.

Although among the lower classes, every leper is especially dangerous to his family and fellow-workers, cases of leprosy frequently appear in the higher social circles.

The theory of heredity of leprosy is now further shown to have lost ground, in comparison with the at present generally accepted theory of its contagiousness.

The treatment of leprosy has only had palliative results up to the present time.

Serum-therapy has so far been unsuccessful.

In view of the virtual incurability of leprosy and the serious and detrimental effects which its existence in a community causes, and considering the good results which have followed the adoption of legal measures of isolation in Norway, the Leprosy Conference, as a logical issue of the theory that the disease is contagious, has adopted the following resolution proposed by Dr. Hansen and amended by Dr. Besnier:

1. In the countries, where leprosy forms foci or has a great extension, we have in isolation, the best means of preventing the spread of the disease.

2. The system of obligatory notification, of observation and isolation as carried out in Norway, is recommended to all nations with local self-government and a sufficient number of physicians.

3. It should be left to the legal authorities after consultation with the medical authorities to take such measures as are applicable to the special social conditions of the districts.

Selections.

CUTANEOUS DISEASES.

In Charge of Dr. Boleslaw Lapowski.

A Case of Myoma Multiplex of the Skin. H. RADCLIFFE CROCKER (*British Jour. of Dermat.*, vol. ix, Nos. 1, 2).

The disease is an extremely rare one, there being only eleven cases on record, including the author's, and one discovered by Verneuil in the dissecting-room. The author divides the myomata into superficial and deep tumors. The superficial tumors are derived from the arrectores pilorum, and less frequently from the muscular coat of the vessels; the deep spring from the vessel-wall by proliferation of its muscular elements, and sometimes from the deep muscular layer of the skin—the dartoic tumors of Besnier. In relating his case the author gives short histories of all the cases published up to the present time. From this analysis the general characters are drawn; that there were seven females and four males; that the age at which the tumors began to develop varied from infancy to sixty years; that the size varied from a millet-seed to a hazelnut; sometimes they are grouped, sometimes isolated, or even appear in patches. The epidermis over them is normal and the tumors are movable. They develop very slowly, at first singly, but with a tendency to increase constantly both in size and number, accompanied with spontaneous paroxysmal severe pain lasting from minutes to hours, probably due to pressure on nerve-endings outside the tumors. In other respects the tumors are benign, never involve glands, and never recur after excision. The microscopical examination of the author's case shows that the growth was situated in the deep part of the corium, reaching in some places up to the papillæ. The hairs and hair-follicles were unaffected, only a thick layer of smooth muscular fibers traversed the follicle and surrounded the sebaceous and sweat-glands. The proliferation of the muscular coat of the vessels was always conspicuous.

Multiple Dermatomyomata. PROFESSOR NEUMANN (*Arch. f. Derm. u. Syph.*, vol. xxxix, f. 1, pp. 3-15).

This affection presents many interesting points regarding its origin, its slow development, its stability, and the presence or absence of pain in the nodules. In the case described, the disease was combined with an ulcerative syphilis upon the roof of the nose. The external surface of the left forearm was covered with pea-size, elevated, partly round, partly elliptical, smooth tubercles of light-brown color on the outer surface and of lighter tint in the center. The tubercles were sharply defined, movable with the skin, hard, and painless on handling. The epidermis covering the tubercles was unchanged. The skin between the nodules was normal as regards tactile and thermal sensations. The diagnosis was only made after microscopical examination revealed the true nature of the disease; a dense network of muscle fibers crossing in all directions, permeated by threads of connective and elastic tissue. Here and there the vessels were surrounded with round cells. The

muscle-fibers diminishing toward the periphery the demarcation-line being formed chiefly by connective tissue. The hair-follicles, sebaceous glands, and the muscoli arrectores pilorum were surrounded by round cells. No nerve filaments were found in the nodules; no changes in the vessels. As to the point of origin of the dermatomyata nothing can be said decisively. The connective tissue may play as large a part as the muscle-cells of the skin. Whether the tumors originate from the muscoli arrectores pilorum or from the muscular coat of the cutaneous vessels is a question to be answered by future investigations. Nothing definite is known regarding its etiology. Men and women, even children (the youngest reported was three years of age) may be attacked by the disease. An explanation of the presence of pain which occurs during the development of the tumors is wanting. Why the developed tumors alone cause pain; why in some cases only a strong irritation will produce it, when in others the slightest cause is sufficient to give rise to radiating pains, is not satisfactorily explained as yet.

Epidermolysis Bullosa. WALLACE BEATTY (*The Brit. Jour. of Derm.*, vol. ix, 1897).

Before relating his cases of this rare skin affection the author gives a résumé of those which have been hitherto published. His three cases occurred in three members of one family: father, aged forty-one; girl, aged three years, and boy, aged eighteen months. The disease is usually congenital, characterized by an appearance of blebs after the slightest injury, containing sometimes clear, sometimes bloody fluid, on the knees, elbows, hands and feet, and also the scalp. Other parts of the body show no special vulnerability and no blebs. The blebs burst and exude a watery or sanguinolent fluid leaving a moist red surface, which is covered with epidermis after a few days. The innate predisposition to the formation of blebs on the slightest provocation lasts throughout life. Besides the bullæ groups of small yellow-white points, about 1 to 2 mm. in diameter can be seen situated over some of the phalangeal joints of the fingers, especially in the children. The father remembers to have seen milia similar to those in his children over his knuckles. Some groups of milia were present on regions where blebs usually do not occur, as over the back of the neck. The nails of the patients were defective on most of the fingers and toes, and occasionally entirely absent from certain of the father's fingers. The skin of the regions which were the site of the lesions is thin, of a pink color, loose, glossy, practically hairless where hairs are usually seen in adults. Some areas of reddened dry skin surrounded by a fringe of withered horny layer can be noticed over some of the phalangeal joints of the fingers—traces of former blebs. There was no disturbance of the general health. On microscopical examination the milia showed cysts situated immediately beneath the epidermis. The wall is composed of epithelial cells, and the contents of horny cellular masses. These cysts are not necessarily preceded by the formation of bullæ. As to the exact nature of the affection nothing definite is known. Kaposi regards it as belonging to the category of urticaria factitia. Elliot is inclined to accept the process as a dermatitis. The author thinks that some abnormality of the epidermic structures is also present on account of the presence of the epidermic cysts.

The Biology of Ringworm. T. COLCOTT FOX (*Brit. Med. Journal*, October 2, 1897).

Scalp ringworm is due to different parasites in various countries. In London the microsporon is mostly seen, in Paris the endothrix, while in Italy the microsporon is unknown. Each one has its own macro- and mi-

microscopical characters and cultural properties. In ringworm due to microsporon Audouini the patches are covered with broken hairs which have a white characteristic parasitic sheath, extending to the intrafollicular portion and above the exit of the hair. This fungus does not attack the beard or nails; it occurs mostly in children, and is almost exclusively human. The fungus affects the outside and the inside of the hair. On the outside it consists of spores, inside it assumes the mycelial form. There is no chain formation. The mycelium terminates in a characteristic way, just short of the bulb in a fringe; when the hair becomes detached the fungus invades the bulb. While Sabouraud claims that the microsporon undergoes a complete cycle of development, invading the inside of the hair and penetrating the cuticle to bear true ectospores, the author thinks that the hair itself is only invaded when the ectospores are formed upon it. Endothrix patches can be distinguished from microsporon patches by the absence of the white parasitic sheath around the hair, by the presence of single short broken-off stumps, and groups of twos and threes about the head, with alopecia-like areas. The endothrix attacks children to a later age than microsporon. But the most characteristic features are divulged by the microscope. The endothrix fungus is comparatively large—megalosporon—forms chains, branches dichotomously, and is confined exclusively to the interior of the hair. The endothrix combined with ectothrix fungi are responsible for most circinate ringworms. The ectothrix is said to account for all beard and nail cases. The lesions are inflammatory, known as kerion. The diseased hair breaks off, leaving stumps, without white parasitic sheath on the hair beyond the follicle, but in its intrafollicular portion the hair is encased by a sheath of fungus in which all trace of chain formation is lost. The spores of ectothrix as to size vary in different cases from very large to minute ones. The ectothrix is exclusively of animal origin. These three groups of fungi present different aspects in form and development upon suitable culture media.

Therapeutic Notes.

The Use of Hæmolum Hydrargyro-iodatum.—STARK (*Monatsh. f. prak. Derm.*, vol. 25, No. 8, p. 378). The remedy was recommended by Rille, of Neumann's Clinic, and endorsed by Krysztalowicz, of Professor Zarewicz's Clinic in Cracow. On account of its containing iodine in combination with mercury the author used Rille's formula (Hæmoli. hydr. iod. 10., 50 pills, 2 pills t.i.d. after meals). In two cases of secondary and two of tertiary syphilis all four patients refused to continue the use of pills on account of vomiting, diarrhea, and pain in the chest during deglutition. In order to verify the statements of his patients the author used the pills himself. After using twelve pills he was attacked with diarrhea, discomfort in the stomach and pain during deglutition. The sensation he experienced during swallowing he describes as a feeling of painful contraction in the lower portion of the esophagus, as if it were torn by each swallowed morsel. When he discontinued to use the pills the unpleasant symptoms disappeared, but reappeared with their resumption. Sublimite pills (0.15 to 0.30 pills) agreed with him quite well. Accordingly, he cannot endorse the opinion of Rille, that the after-effects of the drug are never of such a degree as to call for abandonment of its use.

The Treatment of Chancroid (Venereal Sores) with Itrol (argemum citricum purissimum). O. WEHLER (Reprint from *Derm. Zeitsch.*, 1897).—The author draws very enthusiastic conclusions as to the

therapeutic and prophylactic value of itrol, from the results obtained from by treating forty cases of chancroid of the genital organs, among them one gangrenous and one diphtheritic ulcer. All the desirable properties which the practitioner longs to see combined in one remedy, are embodied, according to the author, in itrol; it has a bactericidal power, it reaches in its action the deep tissues, without producing the slightest irritation; it is painless, odorless, and without injuring the adjacent healthy tissue it stops the destructive process of the chancroid, turning it into a benign, healthy-looking sore.

The reader would expect to find some proof of the correctness of the author's statements, but they are conspicuously absent in the thirty-seven pages of the reprint. The author did not take even the trouble to show by microscopical examinations that he had to do with true chancroid, and not with simple ulcers, and because he was fortunate enough not to meet with bubo in fifteen cases treated with itrol, he feels himself entitled to say that itrol has a legitimate future as a prophylactic remedy. Clinical observation, controlled by the microscope, and bacteriological researches, rather than theoretical arguments, are desirable, in order to prove the bactericide and prophylactic value of a remedy in a contagious disease.

B. L.

Therapeutic Notes on Urotropin.—DR. J. COHN (*Berliner Klin. Wochensh.*, 1897, No. 42) publishes some interesting observations on the use of urotropin in different forms of cystitis. In cases of chronic cystitis with enlarged prostate, which had been refractory to every form of treatment, the urine, under urotropin given in $7\frac{1}{2}$ -grain doses three times daily, would become clear in a few days; when the drug was omitted it would quickly become purulent again, but would remain clear apparently as long as the drug was administered. In old cases of cystitis with stricture, and in cystitis containing the bacillus coli communis there was the same happy effect. This also occurred in several cases of cystitis of unknown origin. In some of the cases the urine remained clear and the cystitis did not return, even after the drug was dropped. In cystitis following acute gonorrhea, and in tubercular cystitis, there was no improvement.

DR. L. CASPER (*Deutsch. Med. Wochensh.*, November 4, 1897) found that urotropin in doses of 1–2 grams causes phosphaturia to disappear. In almost all cases the urine cleared after having been cloudy for months, and even years. He finds it of use in chronic cystitis. He also uses the drug to render the urine sterile before operation on the urinary tract.

Lactophenin in the Neuralgia of Zoster.—This analgesic, administered in 20 grain dose three times a day, has good effect both in the prodromal and post-eruptive pain of zoster. It may be given as long as indicated since, according to Whittaker, there is little danger of cardiac depression from its use. The pain of zoster ophthalmicus (*Atlantic Med. Weekly*, November 20, 1897), usually so persistent and distressing, is relieved to a great extent by the drug when morphin had failed.

Nosophen in Leprous Ulcers.—HITT, in an address before the Chicago Medical Society, stated that his results in treating these ulcers were better with nosophen than any other antiseptic dusting powder. Nosophen must first be converted into its sodium salt, antinosin, before its action can be exerted, so that it is probably best to begin with the latter and not wait for the conversion by the alkalies of the blood and lymph.



ILLUSTRATING DR. OSLER'S ARTICLE ON
SCLERODERMA

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ON DIFFUSE SCLERODERMA; WITH SPECIAL REFERENCE TO DIAGNOSIS, AND TO THE USE OF THE THYROID-GLAND EXTRACT.

By WILLIAM OSLER, M.D.,

Professor of Medicine in Johns Hopkins University, and Physician-in-Chief to the Johns Hopkins Hospital.

I. GENERAL PICTURE OF DIFFUSE SCLERODERMA. II. SCLERODERMA AND GRAVES' DISEASE. III. DIFFERENTIAL DIAGNOSIS. IV. SCLERODERMA AND ADDISON'S DISEASE. V. THE TREATMENT OF SCLERODERMA WITH THYROID EXTRACT.

THOUGH studied and described by neurologists and dermatologists, the diffuse form of scleroderma is perhaps more often seen by the general physician, whom the victim consults for rheumatism or disability. The disease is fortunately rare. I never saw a case until 1891; in 1893 a second case was admitted; in 1895 a very remarkable case was brought to me by Dr. Davis of Saginaw; in 1896 there were four patients with the disease in my wards, and in 1897 another case was admitted. These eight cases, forming the basis of this paper, serve to illustrate a number of points in the symptomatology and diagnosis of this extraordinary affection.

The statistical frequency of the disease in America is given as 0.030 by Hyde. Heller and Lewin give only thirty-two cases reported from North America (out of a total of 451 available for statistics of locality). Of the eight cases one came from Baltimore, three from the State of Maryland, two from Virginia, one from Kansas, and one from Georgia. All were whites.

The monograph of Lewin and Heller¹ covers the whole question so thoroughly that to reporters of cases there is left only the duty of calling attention to special features or unusual complications.

The pathology of the disease is fully discussed in the works on dermatology, and in the monograph referred to. We know really nothing of the essential causes, and the data are not yet at hand upon which a satisfactory theory can be based. The disease is variously regarded as a trophoneurosis dependent upon changes in the nervous system; a perversion of nutrition analogous to myxedema and due to disturbance of the thyroid function; a sclerosis following widespread endarteritis; a primary slow hyperplasia of the collagenous intercellular substance of the corium—fibromatosis; or a primary affection of the lymph-channels, central or peripheral. The first-named view, the one most generally held, may well serve as a working hypothesis.

In order to utilize most fully the material at my disposal I will distribute the cases as they illustrate various points, such as the average clinical picture, the association of scleroderma and Graves' disease, the difficulty in early diagnosis, the recognition of certain cases from Addison's disease, and, lastly, the question of treatment with the thyroid extract.

I. THE GENERAL PICTURE OF DIFFUSE SCLERODERMA.

In its more aggravated forms diffuse scleroderma is one of the most terrible of all human ills. Like Tithonus, to "wither slowly," and like him to be "beaten down and marred and wasted" until one is literally a mummy, encased in an ever-shrinking, slowly contracting skin of steel, is a fate not pictured in any tragedy, ancient or modern. The following cases present the usual features of the disease in its various stages:

CASE I. *Recurring Arthritis before Onset; Diffuse Scleroderma; Sclerodactylism, Trophic Lesions.* (Fig. 1.)—Alice B. of Virginia, aged thirty-nine, admitted October 23, 1893, complaining of stiffness in the joints, and difficulty in movement.

Family History.—Her father died of Bright's disease; her mother of an unknown cause. She has fourteen brothers and sisters. She knows of no hereditary disease in her family.

Personal History.—She has been very healthy; as a child, had measles. She has been married seventeen years, and has had seven children. There has been no disturbance of the menstrual function; she has had no miscarriages. Her youngest child is three years old.

Present Illness.—Seven years ago she had attacks of stiffness with severe

¹ "Die Sclerodermie," Berlin, 1895.

pain in the left knee, which would last from three days to a week. She had to go to bed, and the joint was often hot and sore. Then she would be up and about for five or six weeks, and another attack would prostrate her. After about a year the elbows and the right knee became affected, and would be hot and tender for a few days or for a week at a time. Between the attacks she felt perfectly well. With the arthritis she very frequently had an eruption of red, raised, circular spots, varying in size up to half a dollar; they would appear suddenly, spread rapidly over the body, and slowly fade. The joint attacks lasted for two or three weeks, and were repeated on many occasions. Subsequently the rash occurred without any relation to the articular attacks.

About two years ago the right elbow and wrist became swollen, and after the disappearance of the redness and pain she noticed that the joints

FIG. 1.



of the index-finger were stiff. Gradually the right wrist, the fingers of the right hand, and the right elbow became stiff, the whole process taking about two years. About two months after the right hand became involved, the left hand was affected, the wrist first. The knees and ankles have only lately been attacked, and she still has good movement in them.

She first noticed the skin of the right hand and arm becoming dry and glossy about two years ago, of the left a little later. She thinks that for several years she has had slight numbness in the arms and legs. The condition is very much worse in winter and in cold weather.

The first open sore developed on the ulnar side of the right wrist eighteen months ago, and remained open for about six weeks. Since then she has had sores on the elbows, finger-joints, and outer side of left ankle. The

sore on the right elbow began three weeks ago. She has noticed wasting of the limbs for about two years, shortly after the stiffness began. Her body, too, is thinner than it was. For a year she thinks she has had a little stiffness in the face, a little difficulty in moving the muscles, and in opening the mouth. There has been very little actual pain. She has not had any skin eruption lately. Her appetite has been very good; she has vomited occasionally, and has had several attacks of cramps in the abdomen lasting from eight to twenty-four hours. She has had no cough. The bowels have been regular.

Present Condition.—Patient is a small-sized, delicate looking woman. The face presents a remarkable appearance. The forehead is smooth, without a trace of wrinkling. The skin has everywhere a drawn, tight look, especially about the mouth, the angles of which are drawn down. There is a marked pallor of the entire face. The eyes can be opened and closed fairly well. The nasolabial folds are present, and there are a few wrinkles at the corners of the mouth. The lips are thin, and the upper one appears to be drawn tightly over the teeth. There is very great restriction of the movement of the lips, and of the muscles of the face. She smiles with great difficulty. The maximum transverse diameter of the mouth is 3.5 cm. The incisor teeth can only be separated about 2 cm. The scalp can be moved slightly; the patient says it is less movable than formerly. Her hair is very thin, and she says that it came out a great deal last winter. The movements of the head are good. The thyroid gland is not enlarged.

Arms.—There is general wasting; the movements at the shoulder-joint are limited; the arms cannot be lifted to the level of the shoulder. The difficulty seems to be more in the skin than in the joints. The forearms are semiflexed, and cannot be extended. Flexion is possible to a limited extent. The limitation in movement seems to be due to the hidebound state of the skin. Everywhere over the shoulders and arms the skin has a smooth, glossy, peculiarly waxy look. The skin can nowhere be pinched up, but is firmly adherent to the tissues beneath. A few hairs are seen on the extensor surfaces of the arms. On the outer surface of the right elbow there is a superficial ulcer, and another on the outer side of the wrist. The movement in both wrist-joints is very limited.

The fingers of both hands are contracted and held in the flexed position of typical claw-hand. There is very slight movement in the metacarpophalangeal joints; the little finger of the left hand is flexed at right angles. On the knuckles there are small dry scabs surrounded by hyperemic zones. These, the patient says, may go on to ulcers, or may dry up. There is a small ulcer on the first joint of the little finger of the right hand. The fingers look thin; the skin is drawn, smooth, and glossy, and can nowhere be picked up. In places it has a slight yellowish tint. Over the joints and at the tips of the fingers, which are very much contracted, there is a pinkish tint, which contrasts strikingly with the general waxy pallor of the fingers. The nails are discolored, yellowish, very brittle, and marked with very

rough longitudinal grooves. There is scarcely any movement in the finger-joints. They cannot be extended, nor can she flex them.

Trunk.—The skin over the upper part of the chest is thickened, a little glazed, and is with difficulty picked up. The skin of the abdomen is relaxed and looks natural.

The legs are small; muscles wasted. The skin covering the thighs is drawn tightly, thickened, rough, and closely united to the subcutaneous tissues. This condition is much more marked on the right than on the left side. The skin of the legs is affected in the same way. The skin of the feet is much involved, adherent, glossy, and shows in places the scars of former ulcers. The toes look thin; the skin is very hard and drawn, and has a little bluish-pink color, which gives an appearance suggestive of Raynaud's disease. The patient can walk; the movements in the legs, however, are restricted, especially at the ankle-joints and at the knees. The legs cannot be fully straightened. There does not appear to be any special thickening of the joints themselves, but the skin over them is glossy and hidebound.

There is no increase in the skin pigment. The examination of the abdominal viscera is negative. The heart-sounds are clear. The urine has a specific gravity of 1023, and contains neither sugar nor albumin.

The patient was given warm baths, and the skin oiled with frictions, and the local sores carefully treated. She was then given the thyroid extract, (grs. ii, three times a day). She grew very restive, and at the end of ten days decided to go to her home in Virginia. The thyroid extract did not seem to benefit her, but she did not continue the treatment, or give it a proper trial.

September 6, 1896. Heard to-day that this patient, though at first relieved by her stay at hospital, died about eight months after her return home.

This case illustrates the not uncommon onset with arthritis; the skin rash appears to have been of the nature of an erythema multiforme. She presented the most advanced picture of the disease which we have had at the hospital, and in no other case of our series was the skin involvement so extensive, or the sclerodactylism so marked. The trophic lesions in the form of ulcers and their scars were more numerous than usual.

In the following case, the second in order of extent, the disease has made very little progress during eighteen months in which he has taken the thyroid extract.

CASE II. Diffuse Scleroderma; Onset with Stiffness and Swelling of Hands and Feet; Possible Arrest under the Use of the Thyroid Extract.—Levi B., Hagerstown, Md., aged forty-four, came to the hospital March 14, 1896, complaining of stiffness of the hands and joints.

Family History.—His father died of pneumonia; his mother of "catarrh

of the lungs"; one brother is living and well; six brothers and sisters are dead. He knows of no similar disease in the family.

Personal History.—He has always been healthy and strong; no serious illnesses; he never has had lues. He is a farmer, and has worked hard. He has been married twenty-five years; has five living children; one died of spinal meningitis.

Present Illness.—About two years ago he began to get stiff and sore in the joints. In the morning he was so stiff that he could hardly move; through the day, with exertion, it would wear off. At the onset he had no swelling of the joints. He thinks that his hands have been stiff and hard for about a year. Last winter his feet were swollen, and the backs of the hands were also swollen like a cushion. He has never been in bed with the swelling of the joints. Has noticed a little stiffness of the face for nearly a year. He says he cannot stand the winters, as his hands get stiff as sticks. He is evidently very susceptible to cold, as even in the cool mornings in the summer he has to wear an overcoat. He is much more comfortable in the hot weather. In the past year and a half the patient has lost a good deal in weight, formerly weighing 250 pounds, now 186 pounds.

Patient is a large-framed, well-built man. At the first glance there is nothing very noticeable about the face other than a slight acne. On more careful inspection it is seen that the cheeks and forehead are unusually smooth; on the left side there is no trace of a nasolabial fold. The color of the lips is good. The eyes close easily, and can be shut tight. The skin of the forehead can be lifted up and wrinkled. He can move all the muscles of the face and of the mouth. Says it does not now feel as stiff as it did. The skin of the cheeks is firm, stiff, and smooth, and can only be picked up in very large folds. The skin of the forehead is not specially parchment-like. The skin covering the lower jaw is distinctly softer than that of the cheeks; there is no involvement of the skin of the ears; no trophic changes. The mouth can be widely opened. The skin of the neck is not involved, except just in the region over the larynx, at which there is a fold distinctly thickened. The thyroid gland cannot be felt. There is apparently no involvement of the skin covering the thorax. The arms can be raised above the head; the left scarcely so much as the right. The restriction of movement is owing to the induration of the skin covering the shoulders. The mobility of the arms backward is a good deal impaired, so that he cannot take off his coat without help.

The skin over the trunk everywhere looks normal. The skin covering the abdomen feels a little board-like and thick.

Arms.—Over the outer aspect of both arms the skin is decidedly brawny and thick, and to a slight extent on the pectoral folds; there is a decided difference between the skin on these parts and that just beneath the clavicles. The skin of the forearms looks and feels natural to about the lower third. Then it becomes parchment-like, and can scarcely be picked up. He can flex and extend the arms, but they feel stiff; pronation and supination can be well performed. The hands and fingers are extensively involved.

They look a little brown, and he says at times they have been almost black. They become readily congested when held down. They are cold, moist, and feel everywhere board-like and firm. The skin of the backs of the hands is much indurated, and on the palms of the hands it is also very firm and hard. The fingers feel like marble. There is no place on any one of them at which the skin can be picked up in the slightest degree. They are semiflexed; he cannot make a fist, and the pads of the fingers cannot be made to touch any portion of the palm of the hand. The fingers are movable only at the metacarpal joints. They are completely fixed at the phalangeal joints. The skin of the back of the fingers looks roughened like shagreen. On the first joint of the little finger there is a scar of a sore. On the pads of the middle, ring, and little fingers of the left hand, and on the ring- and index-fingers of the right there are scars of ulcers, which were present last winter. The nails are not altered, and not at all brittle.

The skin of the legs and feet is not affected. He has a little numbness and tingling in them, but no vasomotor changes. The knee-jerks are normal.

The thyroid gland can be felt, and seems of normal size. There are no changes in the organs of the thorax or abdomen. The pulse is not rapid; the superficial arteries are not sclerotic.

The urine was normal. Dr. Barker tested carefully the sensation in the affected areas and found it a little dulled, but without qualitative changes.

The patient remained in hospital for two weeks. He was given the thyroid extract, beginning with 3 grains in the day, and gradually increasing. He was seen again on the 8th of May, when he had been taking the thyroid tablets regularly, since increased to one 5-grain tablet three times a day. There did not appear to be any essential change in the sclerosis, though he thought he was better in some ways.

June 20th. Patient came to-day, and reports that he has been feeling better; less stiffness. To superficial examination there is no special change. October 10, 1896. I saw this patient to-day, and he presented no special change. He thinks, however, that the thyroid extract has benefited him in some ways. He says he moves the arms more freely, and his hands are less stiff. His general health keeps good. The accompanying skiagram of the hand shows very well the absence of any involvement of the bones, and illustrates also the marked contraction of the little finger. (Fig. 2.)

January 9, 1897. Patient came to hospital to-day, and though he expresses himself as feeling better, I can see no special change. It is quite evident that from the date of his first visit in March there has been a progress in the disease. The hands are less freely movable, and he does not lift the arms above the head so readily. He has great difficulty in taking off and putting on his coat.

April 22, 1897. There is no very essential change. The hands are a little congested; he can get the hands up to the head. There is no special change in the skin of the face. The skin of forehead looks pretty natural; that of cheeks is smooth and feels stiff. He has been taking the thyroid ex-

tract steadily since March 23, 1896. There is a little necrosis on the top of the second joint of the little finger, and on the terminal joint of the ring-finger of the left hand. There is little or no mobility in the fingers themselves. They can be moved at the metacarpal joint. The backs of the hands are a little softer. He has gained in weight within the past year, since taking the thyroid extract. He weighed last spring 182, now 204.

November 18, 1897. Patient came to the hospital again to-day. He has continued to use the thyroid extract, omitting it occasionally for a week. He states that he is very much better, but there are no essential changes either in the hands or in the face. If anything, perhaps the fingers are a

FIG. 2.



little less mobile. His general health keeps good, and there certainly has been no extension in the past six months.

We have followed this case with a great deal of interest. He has been most faithful in taking the medicine, and in carrying out our directions. While he insists that he is better and can do more for himself, it is evident that the condition now is not much changed from that of March, 1896.

The third case illustrates extreme scleroderma, with very painful onset. There was a degree of disability out of proportion to the extent of skin involved. The legs showed the erythema and brawny infiltrations of the early stages of the disease. She did not take the thyroid extract long enough to test its efficacy.

CASE III. *Pains in the Joints at Onset; Diffuse Scleroderma of Arms, Hands, and Shoulders; Erythema of Skin over Knees; Brawny Edema of Legs; Pigmentation of Skin of Arms; Death with Gastro-intestinal Symptoms.*—Mrs. Barbara S., aged forty, applied at the Johns Hopkins Hospital, June 24, 1896, complaining of pain and inability to use her arms and legs.

Family History.—Her father died of erysipelas, aged sixty-three; her mother died of pneumonia, aged fifty-nine; one brother is living; one brother died of Bright's disease; there is no history of rheumatism or of tuberculosis in the family.

The patient had the usual diseases of childhood. She is married, and has had eight children, seven of whom are living. She has always been a very healthy woman. She has done a great deal of out-door, and also of indoor, work. She worked very hard all summer and until October (1895). Last summer she had occasional pains in the knees.

The *present illness* came on in October with pains in different joints; the knees, the elbows, and the hands were stiff. The legs were not swollen at first, and she does not remember when they began to swell. There has been gradual impairment of the freedom with which she uses the hands. At first the right, and then the left became affected. She has no actual pain in them, but often an uncomfortable sensation enough to keep her awake. The stiffness has been increasing very much of late.

She was a very dull-witted woman, and she could not say whether her arms and hands had changed much in color, but her friend who came with her, and who lives in town, said that she thought she had changed a great deal, particularly in the arms and hands.

Present Condition.—She is a dark-complexioned woman, with dark eyes; she looks perhaps a little pale and 'sallow. Her friend says that she has changed much in color, and has become distinctly brownish. There is no change in the condition of the skin of the face, and no trace of any scleroderma; the wrinkles are well marked. The skin of the hands and arms is very much discolored, as dark as the darkest grade of sunburn. No areas of leucoderma. The hands are held in the characteristic attitude, with the fingers semiflexed. She says that she thinks it would kill her to straighten the hands, it is so painful across the joints. To the touch the arms and hands are cold and moist. The fingers cannot be extended at all; they cannot be flexed so that the tips of the fingers come beyond the bases of the metacarpal bones. There is a very great degree of disability. To the touch the fingers are uniformly firm; the skin is moved with difficulty, cannot be picked up on the back of the hand or on the back of the wrists. Over the fingers it is very much hidebound. The pads of the fingers and the skin of the palms of the hands are not so much affected. There is no necrosis. She cannot straighten the arms at the elbows on account of the stiffness of the skin. The shoulders are much affected. She cannot lift the arm above the level of the shoulder. There does not appear to be any special impairment in the movement of the joint itself. The legs are not pigmented. There is marked erythema of the skin over both knees. They are not sore to the touch, but very sore when she walks and when she moves about. The erythema over the joints is very marked, but there is no scleroderma. The legs are swollen; there is a brawny pitting, particularly between the ankles and the knees. The skin of the feet is much congested; there is no actual scleroderma. The skin of the upperarms is not so much pigmented.

The skin over the pectoral fold and over the upper part of the breast, and over the manubrium, is quite hidebound. The thyroid gland cannot be felt. Pigmentation over the chest is very slight.

I heard of this patient through her friends to-day, January 21, 1897. They state that when she came to stay with them in June, 1896, she could not dress or undress herself, and could scarcely get up-stairs. Under the use of the thyroid extract she improved a great deal, so they state. She returned to her home in the country, and from what I can gather must have died of an acute gastro-intestinal trouble. She became worse and more helpless, had nausea, vomiting, and diarrhea, and gradually sank and died.

In the following case scleroderma developed rapidly in the course of ordinary phthisis, possibly without any special relation to the lung affection. In four cases mentioned by Lewin and Heller tuberculosis of the lungs was the cause of death; in one case the scleroderma developed in the subject of long-standing phthisis.

CASE IV. *Pulmonary Tuberculosis; Scleroderma of Skin of Back of Neck and Upper Part of Back, of Chest, and of Upper Part of Abdomen.*—Martin M., aged twenty-nine, was admitted to Ward F, May 27, 1891, with tuberculosis of the left apex, and all the accompanying features of that condition in an active state. The lung symptoms had developed within the past six months. Three weeks ago he first noticed a tightness about the neck and back, and a difficulty in moving the head freely. With it there had been some uneasy sensations.

The examination showed a moderately emaciated man. There was nothing special noticed about his face, the skin of which looked and felt natural, except on the lower part of the right cheek, where he says it feels thicker, and it did feel somewhat leathery to the touch. The skin of the scalp is not affected, except behind, over the occipital protuberance. From this point, extending over the entire back and sides of the neck, the skin is brawny, firm, somewhat whitish in color, and can nowhere be picked up in a fold. The induration extends over the scapulæ and the folds of the trapezii, but the skin in the intercostal regions and over the rest of the back is not at all affected. The induration extends over the shoulders to the outer aspect of the arms over the deltoids. The skin of the front of the chest is everywhere involved, firm, and board-like; the edges of the pectoral folds and the skin of the axillæ are not sclerotic. In front the induration extends over the epigastric region, very slight in the umbilical, and is not present in the flanks and lower zone. The legs are not affected.

The color of the skin is everywhere normal; there are no vasomotor changes; no mottling. On deep pressure it does not pit, but feels thick and board-like. The induration over the trapezius and deltoid seems to involve the muscles, as they feel firm, hard, and brawny.

The patient remained in hospital until July 25th; no change occurred in the condition of the skin. He was discharged, and has since been lost sight of.

II. SCLERODERMA AND GRAVES' DISEASE.

Lewin and Heller make only one reference to this association, a case of Selme, in which the two affections coexisted. No details are given. This is Jeanselme's¹ case, quoted by Möbius² and others.

A woman, aged fifty-eight, who had from the twentieth year a tumor in front of the neck, which for seven or eight years had increased in size. There was slight exophthalmus, tremor, and tachycardia. For two years symptoms of scleroderma, beginning with local asphyxia of the fingers; sclerodactylism became marked, and pigmentation of the skin.

Möbius refers to the subject in the following paragraph: "Leube first observed scleroderma of the face and hands in a patient with Basedow's disease, a condition which diminished with the improvement in the exophthalmic goiter. Of late similar observations have been made by Eichhorst, Jeanselme, and others. According to Dittisheim the scleroderma in Basedow's disease is particularly common in Zurich. G. Singer believes that scleroderma usually occurs in connection with disease of the thyroid gland, which he has found affected in ordinary scleroderma." Leube³ makes the somewhat remarkable statement, considering how rarely the condition has been described: "Frequently sclerema of the skin as a complication has been observed by me and by others." Grünfeld⁴ reports an extremely interesting case in a woman, aged thirty-three, with well-developed Graves' disease of several years' duration. Extensive areas of scleroderma developed, but under the thyroid-gland treatment both the exophthalmic goiter and the scleroderma disappeared completely. Grünfeld also refers to a case reported by Kähler, the original of which I have not seen.

In the following case the scleroderma appeared shortly after the Graves' disease, and did not progress.

CASE V. *Advanced Stage of Graves' Disease—Remarkable Scleroderma of Both Legs.*—M. S., aged forty, of Emmitsburg, Md., consulted me March 23, 1897. The patient had had a bad attack of syphilis ten years ago. He was treated steadily for five years. He has been well since, but he now is apprehensive lest the remarkable trouble which has appeared in his legs should be associated with the syphilis. For two years he has had exophthalmic goiter, and has been under treatment by various physicians in different institutions.

¹ *Revue Neurologique*, 1894, 572.

² *Nothnagel's Handbuch*, Bd. xxii, s. 43.

³ *Specielle Diagnose*, Bd. ii, 3te aufl, s. 287.

⁴ *Weiner Med. Bl.*, 1896, 19.

Present Condition.—Patient is a fairly well-nourished man, brownish complexion, with all the characters of an aggravated type of Graves' disease. The exophthalmus is very pronounced. The thyroid is of medium size. There is marked visible pulsation, a thrill, and all the associated vascular phenomena. The apex beat of the heart is in the fifth and sixth interspaces, very marked thud of the first sound at the apex, and loud bruits in the apex region and over the body of the heart. The pulse-rate is variable, from 130 to 160.

The abdomen is full; the edge of the spleen can readily be felt. The liver is not enlarged. Knee-jerks are a little exaggerated. He has no joint troubles, and there is no special pigmentation of the trunk. The legs present a very remarkable appearance. He says that two years ago, shortly after the onset of the exophthalmus, he began to notice a change in the color of the skin of the legs. This has gradually increased and the skin has become swollen, infiltrated, and very hard. With the onset of this condition there was no special redness, no itching, nor any disturbance of sensation. Anteriorly it extends close to the tuberosities of the tibiæ; on the sides of the legs it does not reach so high, only to within about three inches of the head of the fibula on the right side, and a little higher on the left side. The form of distribution is quite symmetrical. Behind, it extends in an uneven border a little above the most prominent part of the calves. It shades insensibly into the normal skin. The color is a peculiar tan-brown. It is everywhere smooth, though there are in places little whitish elevations, particularly on the outer surfaces of the legs. One or two of these look like small fibroid nodules. They are very closely set over the skin, but only a few of them project beyond the surface. On palpation the affected areas feel leathery, firm, and hard. The skin can nowhere be picked up. The line of demarcation between the normal and the infiltrated skin is marked by a distinct ridge. A slight discoloration of the normal skin extends beyond the prominent part of this ridge. Below, the affection is limited accurately by a line corresponding to the tops of the boots. There is no coldness, and it does not pit on the deepest pressure.

May 21, 1897. I saw this patient again to-day. He has not been so well. The tachycardia and irritable state of the heart are evidently much worse. I have rarely seen such pulsation and heaving over the whole of the chest and anterior cervical region. There is the most marked pulsation of the veins of the backs of the hands, and the capillary pulse is readily seen. There is no essential change in the scleroderma. Subsequently this patient came into the private ward of the Johns Hopkins Hospital, and the persistent use of the ice-bag, with belladonna, digitalis, and aconite internally, relieved somewhat the irritable state of the heart. After leaving the hospital he became very much weaker, and died on August 8, 1897.

III. DIFFERENTIAL DIAGNOSIS.

(a) *From Brawny, Solid Edema.*—One meets occasionally in patients with long-standing renal or cardiac disease, with a solid edema

of the legs which is very similar to scleroderma; it is usually an induration following a chronic dropsy.

In the case of Joseph C., aged fifty-five (Hospital No. 5557), who had a chronic nephritis with swelling of the feet and legs for six or eight months, there was an extraordinary state of induration of the skin of the legs, extending as far as the middle of the thighs. There was no special change in color, nor was there great swelling, but the skin was exceedingly indurated, and so firm and hard that on the right leg no portion could be pinched up. On the left leg it only extended one-half the distance up the thigh. It interfered very much with the flexion and extension of the legs. When he was admitted to the hospital he had some swelling of the abdomen and of the genitalia. The patient thought that this condition of induration had come on within the year, and had followed the dropsy. There were no other areas of induration of the skin.

In another case, Robert C. P., aged fifty-five (Hospital No. 8654), admitted November 20, 1893, with chronic enterocolitis, an illness of about six-months' duration. Two months ago he noticed that the feet and ankles were swollen, and on several occasions since the swelling has extended to the thighs and genitalia. The swelling has gradually subsided, but the hardening of the skin of the legs has persisted. The note reads as follows:

"Patient looks thin; skin is desiccated and dry. There are a few ecchymoses about the wrist. The skin of the legs is curiously hidebound like scleroderma; there is no swelling; no edema; pits nowhere on pressure; it is impossible to pick up a portion of the skin anywhere on the legs or feet. To the touch it feels like a piece of firm vellum. On the inner side of the left leg is a healed ulcer." There were no other areas of sclerosis of the skin. He had signs of chronic nephritis, and he had very frequent movements from the bowels. He left the hospital unimproved December 11th.

(b) *From the So-called Scorbutic Sclerosis.*—This could rarely offer any serious difficulty in diagnosis. A case was admitted April 4, 1894, with purpura and the most remarkable brawny induration of the skin of the thighs and calves. The patient could not stand erect, owing to the semiflexed condition of the legs. The parchment-like immobility of the skin was due altogether to extensive subcutaneous hemorrhage, which also involved the muscles. The existence of purpura, the marked swelling, and the associated features make the diagnosis easy, but it is worth passing notice as one of the conditions in which the most extreme induration of the skin may be present.

(c) *From Myxedema.*—There is a stage of swelling or infiltration of the skin in scleroderma which may resemble Gull's disease very closely. It is greatly to be desired that those who have the opportunity of studying cases in this early period would give special attention to the local features, to the condition of the thyroid gland, and to the effects of thyroid feeding. In Case VI. the features were somewhat swollen, the eyelids puffy, and the forearms swollen, but the extreme vasomotor phenomena, the sclerosis of the fingers, the immobility, and the areas of necrosis made clear, it seemed to me, the diagnosis of scleroderma in the early stage.

(d) *From other Vasomotor and Trophic Affections.*—The early stages of scleroderma present features very liable to lead to error in diagnosis—the erythema, the infiltration, the pigmentation, the extreme cyanosis, and the superficial necroses may suggest Raynaud's disease, or even leprosy. I will first give the histories of two remarkable cases which illustrate these vasomotor phenomena in a very marked way.

CASE VI. *Onset with Vasomotor Changes in Arms and Legs; Gradually Scleroderma of the Fingers, with Areas of Necrosis on the Finger-tips; Beginning Scleroderma on Forearms, with Pigmentation.*—During the meeting of the American Medical Association in May, 1895, Dr. Davis of Saginaw brought to see me a Miss R. of Kansas, aged twenty. The case was shown at the Section on Neurology, and was subsequently very carefully reported by Dr. Herdman of Ann Arbor, in the "Transactions of the Michigan State Medical Society" for 1895. There was nothing of note in her family history, except perhaps that her mother died of consumption. She has five brothers and one sister, all living and well.

She was healthy and strong as a young girl. About the time of puberty she evidently suffered with chilblains, having cold hands and feet, and when the temperature was low the fingers got blue. For the past three or four years she has had marked vasomotor changes in the arms and legs. For more than a year she has noticed a curious stiffness in the face, and in the morning, particularly, it feels a little drawn. For more than a year the hands have been getting stiff, and the fingers have become flexed, so that she cannot put the hands together flat. The fingers have been very congested, and in the winter there were areas of necrosis on the pads of the terminal phalanges of all the fingers, and the knuckles have cracked. While her general health has not been much impaired, she has been nervous and miserable, and at times emotional.

Present Condition.—She is a healthy looking, well-nourished woman. The face is smooth, perhaps a trifle immobile. The movements of the muscles of the face are all normal. She says, however, that the upper lip in the morning feels a little drawn, and at times the face feels stiff and leathery. The skin looks smooth but not glossy, and the color is natural. To the touch

the cheeks and forehead feel normal, but comparing it with a healthy person one cannot pick up so small a piece. She noticed the stiffness and slight immobility a year ago. The eyelids are a little puffy and infiltrated. With the exception, perhaps, of this slight immobility and smoothness, there is nothing in the face which would attract the attention of an observer. She expresses it herself by saying that it feels all "drawn up."

On exposing the neck there is a transient erythema. The skin of the neck in front and behind feels a little stiff. The upper arms are well nourished, of good size, and nothing unusual is to be felt. The forearms are symmetrical, and look fuller than natural just above the wrists. There are areas of pigmentation at the flexures of the elbows, and on the anterior surfaces of both arms the skin is glossy. About the central part of the forearms the skin is leathery, parchment-like, and cannot be picked up from the subjacent tissues. The hands and fingers look full and large. They are congested, reddish, the skin shiny. She makes a fist with difficulty, and the knuckles become very anemic. The fingers are a little flexed, and owing to this she cannot put the hands flat together. The skin of the hands and fingers is everywhere firm, resistant, glossy, and cracked over the convexities of the first phalangeal joints. The nails are well formed, except on the left thumb and both index-fingers, where they are small, deformed, and incurved. The pads of all the fingers and of the thumbs are scarred from suppuration and necrotic changes. In cold weather they crack open and sores form. The palms of the hands are moist and very firm and rigid. The tactile, painful, and thermic sensations seem perfect. There is no enlargement of the bones.

The feet are congested, the toes quite purple, looking in a condition of extreme local asphyxia. This, she says, is her constant state when she is up and about. "There is a large amount of fat on the legs. The skin does not feel drawn, and there is no diffuse sclerosis. There are no areas of anesthesia. The skin of the abdomen is not affected. Her general condition appears good, and the various functions seem normally performed.

Throughout the year the patient was under treatment with galvanism at her home in Michigan, and about December 1, 1895, she began to use the thyroid extract. Dr. Davis writes on December 7th: "Her feet and hands are so cold all the time that she often sits with warm mits on her hands, and her feet on a hot griddle. The fingers have been sore ever since early in the fall; three or four of them are tied up all the time, and before one is well another begins to be painful and sore."

In March, 1896, Dr. Davis reported that there seemed to be a great deal of improvement under the use of the thyroid extract. The fingers healed, and she seemed altogether better. He thought, too, toward the end of March that there seemed to be some improvement in the hardened indurated regions of the skin.

She took the thyroid extract from November, 1895, to June, 1896.

I heard from this patient on September 12, 1897. She appears to be very much better. Her feet and hands have improved greatly. She has had no

soreness of fingers for more than a year. Her general health is good. She has not taken the thyroid extract since December, 1896, and she attributes her improvement to a general tonic course of treatment, and to the fact that she lives a very much quieter life, taking better care of herself.

CASE VII. *Scleroderma of the Hands and Fingers, and to a Slight Extent of the Cheeks; Tachycardia; Extraordinary Cyanosis of the Skin of the Legs; Subcutaneous Fibroid Nodules.*—Mr. X. of —, Ga., aged forty-nine, was seen June 15, 1896, with Dr. Charlton, and admitted to the hospital June 17th, complaining of stiffness of the hands and rapid action of the heart.

Family History.—His father died at seventy-three; his mother is living and well; brothers and sisters are all strong and well. There are, so far as he knows, no special diseases in his family.

Personal History.—He has been a very healthy man. He had malaria when in the army, but for the past twenty-five years has scarcely lost a day from sickness. He has been a free liver, eating and drinking carelessly; he has never been in the habit of going on sprees.

His present illness dates from October, 1895, when he had what was supposed to be an attack of influenza. He had rheumatic pains for several months, chiefly in the muscles, usually shooting in character. He was weak and prostrated. About November he had an attack of acute inflammation of the right foot and ankle, which persisted for several weeks, and was severe enough to confine him to bed, and only yielded under the use of colchicum and iodid of potassium. He recovered from this very slowly, and was very prostrated and weak.

In the latter part of January he went to Florida, and the rheumatic pains gradually disappeared, but his general condition of ill-health did not seem to be much improved. The foot became easily swollen and very much congested. He noticed the stiffness of the hands coming on gradually through the autumn, and the hardness and coldness have increased very much since the first of January. He had occasionally pains in the hands, but latterly it has been chiefly a little pricking sensation in the pads of the fingers. The pains in the legs have all disappeared. The doctor says that the rapid action of the heart has been quite marked, and he has at times been very short of breath.

Present Condition.—The patient is a well-preserved man; expression of face natural; the normal folds and wrinkles are present. On the right side of the forehead there is a nodular induration, the size of a small cherry, which he says was present as a small spot as a boy, when he received a blow with a piece of brick. It has grown very much since his illness, and at present feels like a firm, subcutaneous fibroid nodule adherent to the periosteum. There are no tophi in the ears. The movements of the face are perfect. He says, however, that as he moves the muscles there is a sense of stiffness and effort, particularly about the cheeks. The skin everywhere feels normal, except just above the nasolabial folds, where it is parchment-like and a little smooth. There are no special changes in the hair.

On exposing the neck and chest the skin at once becomes very hyperemic. There is no trace of induration of the skin.

The upper arms are not involved; the movements are perfect. The skin of both arms from about the middle of the forearm is hidebound and cannot be picked up from the subjacent tissues. There is no pigmentation, and no changes in color.

The hands and fingers are very much affected. They are cold, moist, and look congested. The skin of the back of the hand is picked up with difficulty, and in a very large fold. The fingers are firm, hard, and entirely hidebound. They are cold, and as he expresses it, "feel just like sticks." He cannot make a fist; the terminal phalanges cannot be flexed at all. The proximal phalangeal joints can be bent nearly to a right angle. The fingers are held constantly semiflexed. The pads are very firm, the skin red and shiny; there is no loss of substance. The palms of the hands are hard and leathery.

Legs.—He walks and stands well; the reflexes are normal. The legs feel sometimes a little heavy and full. There is no involvement of the skin of any part. The ankles look a little puffy, and both feet are marked in several places with the boots. On deep pressure there is slight pitting half-way up the legs. After standing up to undress and dress himself the skin of the legs and feet presented the most remarkable appearance. They became congested, purple, and cold, nearly half-way up the thighs. There was evidently very great venous stasis and the finger-mark was filled up very slowly. This extraordinary condition, the doctor says, has been present ever since the autumn, and is especially noticeable in the morning after he gets up. There are no trophic changes in the skin; the feet are moist, and he sweats naturally. The ankle-joints are freely movable. The big-toe joints are neither swollen nor tender.

In the hospital, after having been in bed for thirty-six hours, the change in the condition of the legs is remarkable. There is no trace of redness, and the puffiness has disappeared completely. The pulse in the erect posture was 138; after twenty-four hours rest in bed it was 90. The arteries are not sclerotic. The apex beat is in fifth interspace, area of transverse dulness increased, a soft systolic murmur at the apex, probably due to the rapid action of the heart. At the base the sounds are clear.

Urine.—Yellow; opaque; heavy white sediment; faintly acid; amorphous phosphates; no casts; 1010; no albumin; no sugar.

September 7, 1896. The fingers look scarcely so purplish as they did, and I think are scarcely so cold. Otherwise there is no essential change. The nails are all heavily ridged horizontally, and the ridges are beaded. The erythema extends up the arms; no special change in the face. He complains somewhat of a little numbness on the left side of the mouth, and on the upper and lower lips, and along the left cheek as far as the lobe of the ear. The nasolabial fold is a little stiff, as it was at the first examination. There is no special change in the skin of the trunk. The feet are

very livid and cold; skin about the ankles and feet feels a little indurated. Certainly, as he sits down there is less congestion about the legs.

He has had a good summer. The pulse-rate has been from 84 to 108; average of 95 or 96. There has been no palpitation of the heart, except for a week when he stopped the digitalis mixture. He took the thyroid extract faithfully until about a month ago. He is stronger, able to get about better, and the color of his face is better. His present weight is 138 pounds, the same as when he came to Baltimore. The weight fell to 131 pounds, but has gained again.

The patient heard from on September 12, 1897. The condition has remained stationary; probably slight improvement, since he is now able to attend to his business.

December 21, 1897. I saw this patient to-day. He has been taking almost uninterruptedly the thyroid extract, and the digitalis; of the latter, 10 minims three times a day. He thinks in many ways he is much better, able to do more, can walk four or five miles, and has been able to attend to his business actively. The remarkable vasomotor changes in the skin of the legs is very much less marked, though he still when he stands up has great congestion and lividity of the feet. The tachycardia has diminished. The pulse-rate is rarely now above 90, though to-day on first examination it was 120. The scleroderma has certainly made no progress in extent. It is still confined to the hands and to a small extent to the face. In the hands the fingers are harder, but there have been no spots of necrosis, and he is still able to flex the fingers so that they can touch the palm of the hand. His face looks much better and has lost the puffy infiltrated appearance. Only about the cheeks there is very positive induration. He says that the lobe of the left ear at times feels a little stiff. He complains, too, of peculiar sensations about the lips, and a tingling, particularly if he takes anything very hot to drink. As the thyroid extract had been given a full trial, it was stopped, and he was ordered salol, grs. xv, t. i. d. (according to Phillipson's¹ directions), a drug which seems to have been very successful in his hands.

Case VI. was shown in the Neurological Section of the American Medical Association at Baltimore, and no unanimity was reached in the diagnosis. It is evident, too, on reading Dr. Herdman's report, that when the patient was under his care the nature was not quite clear, though he inclined to regard it as an anomalous instance of scleroderma.

Case VII. presented a remarkable series of vascular changes, erythema, extreme vasomotor paresis, and tachycardia. I never remember to have seen such extraordinary cyanosis as developed within a few minutes in the legs as he stood up. It was almost as if one could see the blood filling the vessels, and the engorgement became more and more pronounced until the legs to the middle of the

¹ *Deutsche med. Wochenschrift*, August 12, 1897.

thighs were plum-colored. The tachycardia is an unusual feature, not mentioned by Lewin and Heller. It has been persistent. The subcutaneous fibroid nodules met with in this case have been described by Hutchinson and others in this disease. The erythema, with swelling of the skin and pigmentation, not uncommon early symptoms of scleroderma, may lead to the suspicion of leprosy. Dr. Boyce of Kelowna, B. C., brought a remarkable case to the Montreal meeting of the British Medical Association. The members of the Dermatological Section did not agree upon the diagnosis. I saw the case subsequently, and the erythema, the infiltrated areas, and the pigmentation seemed to me suggestive of beginning scleroderma. Many of the members of the section thought the case was one of macular leprosy, a point in favor of which was the swollen condition of the ulnar nerves, which, so far as I can ascertain, has not been described in scleroderma. The patient improved somewhat on the thyroid extract, but Dr. Boyce wrote that he died suddenly ten days after his return to his home. To within a week of his death he was taking 5 grains of the thyroid-gland extract three times a day. Sudden death, rare in early leprosy, is not unknown in scleroderma. A case of Dinkler's and one of Willrich's died without recognizable clinical or anatomical cause.

(To be continued.)

LYMPHANGIOMA OF LABIA MAJORA VULVÆ.¹

By JAMES C. WHITE, M.D.,

Professor of Dermatology in Harvard University.

I DESIRE to place upon record a brief account of a case of this disease, which has recently come under my observation. The patient was sent to me by Dr. W. of Maine for an opinion regarding the nature of an affection of the external genitalia.

The patient was unmarried and twenty-seven years old. She first consulted her physician on account of a trouble in her left leg, which he thus describes: "Miss X. first came under my professional notice in 1890 for a swelling of the left leg below the knee. It was decidedly edematous, white, and shiny. I could discover no cause whatever to account for it. The leg had been in this condition for about two years, but had never been red or inflamed. I tried bandaging, and treated her general health. There being no improve-

¹ Read at the meeting of the American Dermatological Association at Washington, May 6, 1897.

ment, I took her in 1891 to consult a surgeon in Portland, but a careful examination failed to find any sufficient cause for the edema. As she not only did not improve, but the other leg had begun to enlarge, in 1893 I called in a gynecologist, who expressed the decided opinion that there was a pelvic tumor interfering with the circulation, but she would not submit to any examination. Later in the same year both legs on one occasion, after unusual exercise, became not only edematous, but red and highly inflamed. About this time it was found that the heart's action was not normal. Subsequently she kept having frequent attacks of cutaneous inflammation of the legs."

Dr. W.'s attention was not called to the condition of the vulva until two months before I saw her, in December of last year. I found the outer labia greatly thickened, of dense consistence, and somewhat compressible. Their outer aspect is thickly occupied by closely compacted outgrowths, varying in size from a very small to a large pea, of a dull red color, with rugous summits like warts, not smooth like genital papillomata. They are distinctly separated down to their base. Similar growths occupy the inner surfaces of the greater lips a little way downward from their edges. The lesions are firm individually, but they may be flattened down to half their elevation by long-continued pressure. They are not painful under such manipulation. Some moisture is noticed between them, and the patient says there is often a considerable discharge from the surface, which stains and stiffens the clothing. Does not know that any of the growths have ever ruptured, or that they looked at first like vesicles, but says she never made a close examination of the parts. She thinks there was no marked edema of the lips before the growths appeared. There is no itching of the parts now, but before their development there was intense pruritus vulvæ for a year or two. The inner labia are somewhat thicker and firmer than normal, but their surface is natural. The clitoris is unchanged. The glands in the groin are unaffected, and no change in the lymph-vessels of the legs can be detected. The growths have increased in number very gradually, she says. The attacks of diffused dermatitis of the legs have affected large areas, and have been so painful that she has been obliged to remain in bed several weeks each time.

Much attention has been given within the last few years to the subject of lymphangioma of the female external genitals, and a careful study of some individual cases has been made, especially by Drs. Roberts (*British Journal of Dermatology*, August, 1896), Malherbe of Nantes (*Annales de Dermatologie et de Syphiligraphie*,

March, 1896), and Heuss of Zurich (*Monatshefte für Praktische Dermatologie*, July 1, 1896). The photographs of the gross appearances of the parts which accompany the latter two papers closely resemble those presented by my own case, and I exhibited them in illustration of it. The absence of any marked generalized elephantiasis of the parts, primary or secondary, is to be noted in these as well as in my own case. The differences in the gross appearances of the two affections is strikingly shown by comparing these photographs with one (now exhibited) of the labia of a tattooed South Sea Islander. A wide variation has been found in the anatomical changes, especially in those of the lymph system, in the individual cases.

Dr. W. kindly removed one of the smaller outgrowths by excision on her return, and sent it to me. It was given to my son, Dr. Charles J. White, for examination, who furnishes the following report and drawing:

ANATOMO-PATHOLOGY.

The piece excised for examination was a small tubercle growing upon one of the labia majora. The specimen was hardened in alcohol, embedded in celloidin, and cut in thin sections, which were stained by hematoxylin eosin, by Grübler's orcein, by the Gram-Weigert method, and by a mixture of methylene-blue and carbonate of potash.

Studying the sections stained by hematoxylin eosin, we find the following conditions: The stratum corneum appears practically normal, with here and there a faint suggestion of nucleation in the lower row of cells.

The stratum lucidum is not apparent.

The stratum granulosum is more than usually prominent—in some places presenting six or seven rows of cells, which toward the rete Malphigii show distinct vacuolation.

The rete Malphigii is clearly hypertrophied, exhibiting frequent interpapillary down-growths. The layer as a whole stains poorly, owing to the marked edema, which obliterates the spines of the individual cells, and, in places, quite separates the cells one from another. No mitoses could be discovered.

The Derma.—Papillæ appear slightly edematous, and at rare intervals contain slightly dilated lymph-vessels cut in transverse or in longitudinal section.

The basal tissue immediately subjacent to the papillæ shows a slight edema, but in other respects presents no divergence from the normal. When, however, we reach the connective tissue which sup-

ports the upper layer of vessels, we find a distinct round-cell infiltration surrounding many small dilated lymph-vessels, cut as a rule in cross-section.

In the deepest layers of the corium one sees the essential process in its highest development. Here one finds many dilated lymph-vessels and enlarged lymph spaces, which in places appear as large, irregular-shaped lacunæ filled with a coagulated mass which absorbs the eosin in varying intensity. In places this coagulum appears mesh-like; in others, of a uniform homogeneity, containing rarely a few leucocytes. It is, however, only in the larger channels that we find any contained matter, for the numerous small vessels are quite empty. Evidences of inflammation about the larger channels are not so conspicuous as about the smaller ones, and even there the invasion of leucocytes is far less marked than in the upper layers of the derma. As a rule, the lymph-vessels are lined with a layer of endothelial cells, although here and there one may find an exception.

The sections stained by the methylene-blue process disclose the presence of plasma and mastzellen in moderate quantities.

On looking at the sections stained by orcein, one is struck by the great scarcity of elastic fibers. It is only in the deeper portions of the cutis that one sees the fibers assuming in any degree whatever their normal numbers, while in the papillæ they are practically absent. Perhaps this paucity of elastic fibers can be explained by the abundant edema of the parts, for a similar disappearance has been noted by W. Peter in kraurosis vulvæ wherever edema and round-cell infiltration were marked.

Sebaceous and sweat-glands and hair-follicles did not occur in the section.

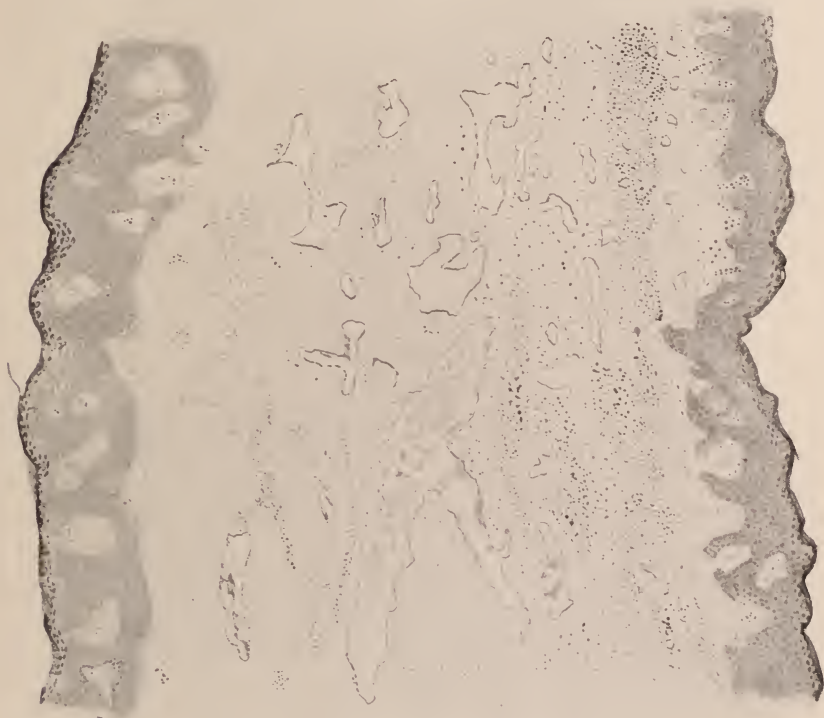
The strictest search for bacteria was futile.

We have to deal here with a process clearly lymphatic in structure; in other words, with a class of diseases which are by no means common, and the varieties of which have not yet, to my mind at least, been definitely classified.

At the outset of our investigation we meet with a difficult task—that is, to decide whether the present case is an example of a dilatation of preexisting vessels, or whether we have to deal with a true new growth of the same. For my part I am unable to determine this positively. Against the probability of a lymphangioma we note the absence of any budding of the smaller vessels, the lack of any mitoses, and the non-evidence of the lymphangioblasts which Török has described. Militating against the idea of lymphangioc-

tasis, we see how abundant are the round cells about the small vessels, and how less numerous in the vicinity of the larger ones, suggesting to my mind the possibility that this plentiful exudation of formative elements means a further increase of new lymph-channels. Another, and perhaps more conclusive evidence against a simple dilatation of preexisting vessels, is the point that there is a

FIG. 3.



strong suggestion of lymph-vessels in the papillæ, a region which is supposed normally to contain no such elements.

For these reasons I am unable to state definitely the exact nature of the lesion under consideration. I must, however, confess that I am inclined somewhat to the theory of a true lymphangioma with concomitant lymphangiectases.

Assuming this to be true, in what clinical and anatomical subdivision are we to place our case? There is a seeming unanimity of

opinion among the writers of text-books which place changes in the lymph-vessels under the following heads: First, those where the lesion is superficial; and, second, those in which the hypoderm is the seat of the disturbance.

On this basis we find subdivisions which, under the superficial type, are described as (1) lymphangioma superficiale simplex (angioma circumscriptum), and (2) lymphangioma superficiale on the basis of deep lymphangiectatic processes. Under the subcutaneous type we find (a) lymphangioma tuberosum multiplex of Pospelow, (b) lymphangioma subcutaneum solitare, and (c) lymphangioma of the subcutaneous vessels. These are genera of Unna, and the latest editions of the works of American and European dermatologists agree with them closely.

I cannot reconcile this process clinically or anatomically with the disease called lymphangioma circumscriptum. Let us recall the clinical description given above. We do not note closely grouped, superficial, frog-spawn-like vesicles, with here and there suggestions of warty growths; nor do we find the lesion situated upon the chest, neck or shoulders—the classical seats. On the contrary, we have a much deeper process lying in the swollen tissues of the labia. From the histological aspect lymphangioma circumscriptum is entirely out of the question. Török defines this as a process in which we find the “changes almost exclusively in the papillary body and in the subpapillary layer of the cutis. The epithelium is merely passively thinned, and the prickle layer reduced to two layers of cells,”¹ conditions which we see quite reversed in our case.

According to our histological examination we must necessarily rule out the second division of lymph-tumors—the hypodermic. Therefore, if we are to adhere to existing nomenclature, we are forced to call our case one of “lymphangioma superficiale, on the basis of deep-lying lymphangiectatic processes,” and to my mind there are sufficient grounds for such a diagnosis when we take into consideration the history and the anatomy of our case.

C. J. W.

¹ Unna, *Orth's Pathologische Anatomie*, Band II. s., 938.

REPORT OF TWO CASES OF "SAVILL'S DISEASE."
(DERMATITIS EPIDEMICA.)

By GEORGE WALKINGTON COLBY, M.D.,

Attending Dermatologist to the Brooklyn Throat Hospital;

WITH REMARKS BY JAMES MAC FARLANE WINFIELD, M.D.,

Chief of Clinic, Dermatological Department of the Brooklyn Throat Hospital.

THE object of presenting these reports is, that after careful research no cases of this uncommon disease have apparently been observed in America.¹

The two cases which form the subject of this paper presented themselves for treatment at the dermatological clinic of the Brooklyn Throat Hospital; a provisional diagnosis of epidemic dermatitis was made, which was corroborated by Dr. James Macfarlane Winfield, Chief of the Dermatological Division. Shortly after, Case II. was shown before the Brooklyn Dermatological Society, the majority of members concurring in the above diagnosis.

CASE I.—Male, forty years of age; American. Occupation, engineer.

From an early age the patient was addicted to the excessive use of alcohol and tobacco; he denies specific history, and nothing was found upon examination to discredit his statement. According to his own observation he has been a sufferer from asthma most of the later years of his life.

His mother is dead, as are eleven of the thirteen children, himself and one brother only surviving. The father probably died from the excessive use of alcohol.

In 1870 the patient suffered from an attack of typhoid fever, from which he rallied after prolonged convalescence; since then, he says, he has had exceptionally good health. He gives no history of either gout or rheumatism.

On November 18, 1896, there appeared about the knuckles of his left hand a papulovesicular eruption, which on the following day had extended up the forearm to the elbow. It continued to spread, until on the fourth day it had reached the shoulder. Shortly afterward the other arm became involved in precisely the same manner. The legs and thighs then became involved, the eruption presenting the same character as on the arms; it did not extend above

¹Since writing the above Dr. John A. Fordyce reported two cases before the New York Dermatological Society, published in *JOURNAL OF CUTANEOUS AND GENITO-URINARY DISEASES*. March, 1897.

Poupart's ligament. The face and trunk remained throughout the disease entirely free.

The cutaneous lesion resembled a papulo-vesicular eczema in certain areas, and in others a macular syphilide. From the first it showed a pronounced tendency toward desquamation, not only over the diseased area, but over that portion of the skin on which no apparent lesion had existed. The scaling was very profuse. There was, at the time excessive itching, and some thickening of the diseased skin, but the pronounced erysipeloid swelling, as was present in Case II. (to be described later) did not occur.

The patient suffered from extreme malaise, constipation, and anorexia; the tongue was covered with a thick white fur. There was a slight rise of temperature amounting to about one to one and one-half degrees.

The cutaneous disease had completely disappeared at the end of five weeks, but since then he has suffered from extreme general debility, the nervous system seeming to be profoundly depressed. A peculiar feature of the subsequent condition is—according to his statement—the entire loss of sexual power, which he asserts was perfect before the cutaneous lesion appeared.

CASE II.—Male, twenty years of age; American. Occupation, machinist. Weighs 176 pounds, and is an exceptionally well-developed and proportioned man. He is a moderate user of alcohol and tobacco. Denies specific history, and upon examination his statement seemed to be verified. He has never suffered from either gout or rheumatism.

Family history good; father, mother, sisters, and brothers are all living and in good health.

The history of the disease dates from the appearance of a small papule in the left axillary space. The concomitant symptoms were severe pain on motion and a very annoying itching. Simultaneously with the axillary papule there appeared about the knuckles of both hands numerous small bullæ ("water blisters") which gradually extended up the arms over both anterior and posterior surfaces. From this, and from the axillary center the eruption spread, until at the end of two weeks the entire body, excepting the face and the legs below the knees, became involved with a multiform cutaneous outbreak.

In some places the lesion resembled a papular eczema, in others a pityriasis maculata et circinata, and again a well-developed erysipelas; the latter being more marked on the arms, these being swollen to almost twice the natural size.

At the end of two weeks desquamation had begun; the profuse scaling being general, not only occurring where the eruption had previously existed, but on the apparently healthy skin. From beginning to end the whole process lasted about five weeks.

The subjective symptoms were itching to an almost insufferable degree, and more or less swelling of the parts on which the cutaneous lesion was most prominent.

The constitutional symptoms manifested themselves in an inordinate thirst, which nothing but large quantities of water would satisfy. The tongue was covered with a thick white fur, and the bowels constipated, yet throughout the entire disease the appetite remained good. The temperature ranged from $99\frac{1}{2}$ to 100° F.

The cutaneous lesions had entirely disappeared at the end of five weeks, leaving the patient in a state of general nervous debility; one of the marked features of which was the appearance of a giant urticaria, which has been very persistent and has caused much pain and discomfort.

Treatment.—Case I. received a two-per-cent. carbolic unguent. The bowels were kept open with magnesium sulphate, and in addition he received $\frac{1}{80}$ -gr. sulph. strychnin every four hours.

Case II. received calamine and carbolic lotion. The bowels were regulated with mag. sulph. He also received strychnin sulphate in doses of $\frac{1}{80}$ -gr.

The cases above reported have many clinical points in common with those of epidemic exfoliating dermatitis first described by Dr. Savill. The mode of attack, starting from a papule in one case, and the other from an eczema-like patch about the knuckles. The cases also resemble those of Savill in their desquamation. A careful analysis of the report will disclose many other features which will justify Dr. Colby's diagnosis. Naturally the question arises whether epidemic dermatitis ever occurs sporadically. If it does, is it not possible that many acute cutaneous affections attended with excessive exfoliation, described under various names, are not instances of the disease under question? During the past winter a number of cases have been observed which had many symptoms in common with those just described. All of them came from the poorer sections of the city, and from tenements where many people were crowded together; some appeared to show evidences of contagiousness. It is to be regretted that bacteriological examination was neglected in these as well as Dr. Colby's cases, for if the diplococcus had been found it would have done much to establish the

diagnosis. Still from the clinical and other evidence at hand it is fair to assume that Savill's disease does exist in the United States as well as in England.

J. M. W.

Society Transactions.

TRANSACTIONS OF THE FRENCH ASSOCIATION OF GENITO-URINARY SURGEONS.

SECOND SESSION, OCTOBER 21-24, 1897.

PROFESSOR GUYON, *President*.

(*Concluded from page 33.*)

Hydronephrosis; Transperitoneal Nephrectomy; Recovery from Operation. DR. JULES BOECKEL (Strasbourg) reported a case of hydronephrosis following a pyelitis, in which he made a transperitoneal nephrectomy. The tumor, as large as a fetal head at term, was composed of a series of cells which could be grouped into two distinct parts, an upper and lower half. They joined at the pelvis of the kidney, the upper half of which was obliterated. The ureter was totally obliterated. The fluid from the upper cysts was purulent; that from the lower was clear, resembled urine, contained urea, and a trace of albumin, masses of large polyhedral cells, and a few pus corpuscles. The internal wall of the cysts was nodular. The patient recovered quickly from the operation, but three months later the sound kidney was attacked and patient died six weeks later. The case was then a hydronephrosis following a chronic pyelitis, with complete obliteration of the ureter and partial obliteration of the pelvis. The etiology and nature were obscure; patient was a virgin. No hereditary taint of tuberculosis, syphilis, or affection of the inferior urinary organs, no traumatism, calculus, nor hydatid could be established.

Cutting and Lithotripsy. M. CHEVALIER (Paris). The comparison between these two procedures is often made in a different spirit, according as it is made by surgeons familiar with lithotripsy or not. Those who are not, according to Chevalier, are not just in their criticisms. First, they claim that it is not as "surgical" a procedure as the cutting operation—this objection is frivolous; second, that it is more dangerous. This is denied by those familiar with both operations. Third, apparently a more serious objection, that it exposes to recurrence, avoided by the cutting operation, on account of difficulty in completely removing all the débris. This has been refuted by Guyon and Albarran, to say nothing of cystoscopic examinations which have shown the bladder to be completely freed. As far as recurrence is concerned, it is not avoided by either operation, it does not depend upon the operation employed but either upon the nature of the organism, "calculs d'organisme" (Guyon), if the stone is urate or oxalate, or upon suppuration in the bladder or kidney, "calcul d'organe" (Guyon). So that lithotripsy has rather the advantage, as it may be frequently repeated. Indications for the cutting operation, although limited, do, however, exist, when the stone is too large, too hard, or when there are very many, or when the condition of the bladder or the general condition of the patient is too bad.

M. ALBARRAN agreed with the preceding authors, but we are never very sure that the operation by lithotripsy is complete. He also verifies by the

cystoscope a week after the operation. This is easily done, since the urethra is dilated and the bladder in repose, having been relieved by the operation. Nitze has proposed immediate examination by the cystoscope, introduced into the evacuating catheter, but this is not always feasible with a bleeding bladder. As regards the suturing of a vesical diverticulum, as has been proposed, it is a bad operation, as here a cavity is closed which cannot be disinfected, exposing the patient to the danger of a peritoneal opening or failure of the suture to hold.

M. MALHERBE (Nantes). In general, lithotripsy is the operation to be preferred. It is difficult, but becomes easier with practice. He has never encountered a calculus too hard to crush, nor is an enlarged prostate an obstacle impossible to the lithotrite.

M. TEDENAT (Montpelier) thought that a small lithotrite used immediately after the operation, then several days after, an important method of verifying whether anything was left in the bladder. As to hardness or size of calculus being a contraindication to lithotripsy, he did not believe in figures; the operator must know how to appreciate this himself from his own experience.

M. GUIARD thought the small lithotrite, and above all, the aspirator, of great value in the relapsing cases of phosphatic calculi. He had for several years followed a patient with a long-infected bladder and phosphatic calculi, in whom Professor Guyon had done lithotripsy five times in a year and a half, whose bladder remained affected in spite of perseverance in lavage and instillations. With M. Guyon's consent he had subjected the patient to frequent séances of lavage and aspiration with the large metal catheter. In this way every five or six weeks for eight or nine years he had washed out of the bladder small bits of phosphatic concretions. By this treatment lithotripsy had been avoided. He was in accord with Albarran as regards the cystoscope, but he preferred to have recourse to the evacuator; small concretions could be hidden in the folds away from the small lithotrite and the cystoscope, and these could often be made to descend into the receiver of the evacuator. As regards the operation proposed by M. Poussin in the case of diverticulæ, he thought that the catgut suture might serve as a nucleus for new calculi.

M. ALBARRAN, in response to the objections to the verifications by cystoscope, believed that calculi or fragments which could escape the cystoscope, would be inaccessible to any other instrument. As to verification by the aspirator, that was too uncertain; for example, he had only to cite the cases of phosphatic calculus.

M. CARLIER agreed largely with the remarks of Poussin.

M. POUSSIN replied to an objection that the indications for a cutting operation in encysted calculus are rare, and also that excessive enlargement of the prostate necessitates the cutting operation only when it is a bar to the passage of the lithotrite, and necessitates at the same time a lithocystotomy, permitting at the same time a prostatectomy of the hypertrophied lobes. The shutting off by suture of a vesical diverticulum is a procedure justified by analogy with what occurs after ablation of vesical tumors, where, in spite of an infected bladder, the wound heals by first intention. Calculi do not seem to have a predisposition to form with the suture as a nucleus. Consequently the dangers are less than M. Albarran believes, especially with a good antisepsis.

Suppuration in Para-urethral Canals in Women. DRs. HARTMANN and REYMOND (Paris) call attention to suppuration and gonorrheal infection occurring in small canals situated outside the meatus. These canals are not of glandular structure. The authors report two cases.

M. VERCHERE: These abscesses develop not only in the true glands, but

in the mucous cul-de-sac. These lesions are not always true abscesses; sometimes, in a localization of gonococci, we have an accumulation of secretion like smegma. As regards true suppuration, it is described and it exists. They may cause closure of the orifice opening into the urethra and give rise to those fistulæ which open into the urethra or the vagina, and call for surgical treatment.

M. HARTMANN: Up to the present they have always been spoken of as glands; I desired to show that these have nothing to do with glands.

M. REYMOND: The point of interest, as shown by Dr. Hartmann, is, that not only those abscesses exist which open externally, but they develop in canals, which open externally normally.

Experimental Operations Practised on the Genital Apparatus to Cause Atrophy of the Prostate. DRs. ALBARRAN and MOTZ (Paris). A study of forty experiments.

In horses, castrated several years previously, the prostate was found to be atrophied as regards its glandular elements, but not reduced in size. In the ox, macroscopically no difference could be noted as compared with the bull, but microscopically there was marked atrophy. In dogs, we must reckon two types; (a) that of a young animal which is scarcely to be differentiated from a prostate in the adult animal, which is in a state of atrophy, and (b) the prostate in the adult animal. In castration of the adult animal they were able to obtain an atrophy in every case. The atrophy was general. In the removal of the testis there were five experiments. In two there was no result. In three some difference was noted (three to four months after operation) there was some atrophy of entire gland, and not unilateral; the atrophy was markedly less than in complete castration. In nine dogs there was double resection of the vas. In two cases, after eight days to one month, no change was noted. In seven others, after three to four months, one failed, six showed atrophy of prostate, which was marked in two cases only. Resection of canal alone remained negative. Injections of chlorid of zinc or iodine, leading to complete atrophy of the testes, showed as marked prostatic atrophy as in castration. In angioneurectomy of the cord, in which all the elements of the cord on each side were resected except the vas, its main artery, and one vein, after three months, was followed by complete atrophy of testes and of the prostate. That of the latter is quite as marked as in castration. This leads the authors to propose angioneurectomy instead of castration. This has already been performed at the Necker Hospital.

DR. DESNOS had practised four times an operation, too recently, however, to form a judgment, in which he had made complete resection of a portion of the scrotum, as in the method of Horteloup for varicocele. In every case the functional result has been excellent. It would be premature to seek the mechanism by which the result was obtained; it may be, however, that the resection of the nervous elements plays a rôle superior to that of the vascular elements.

Castration and Angioneurectomy of the Cord. DR. ALBARRAN has performed castration for prostatic hypertrophy in six cases, where there was partial or complete retention and patients were obliged to resort to the catheter. In three, the cure was complete; in three, the amelioration was marked and improved further as time elapsed. In one case he had done an angioneurectomy under cocaine, without pain. The cocaine was injected into the cord at the site of the operation, and intradermic at the site of incision. Incision, 4 c.m. long, the vas, its artery, and one or two veins were separated and the rest of the cord embraced *en masse* with two catgut ligatures, and resected between; an extra ligature, for safety, was thrown about the upper end of the spermatic artery, and the wound closed. Recovery

was rapid, but it is too recent to judge of the degree of atrophy of the prostate.

Histologic Structure of Hypertrophied Prostate after Operations in the Genital Apparatus. DR. MOTZ presented observations on prostatics where thirty-eight days after castration there was no trace of atrophy; in spite of this, it was shown that there might be complete cure of symptoms without there being a trace of atrophy of the prostate.

Indications for Operation on the Testes in Prostatic Hypertrophy. DR. LEGUEU, like others, has had success and failure in castration and resection of the vas. There are three elements in hypertrophy. Congestion, glandular hypertrophy, and sclerosis. After castration, when the result is rapid, the element is congestion; when slow, it is due to glandular hypertrophy. With sclerosis, there is no modification. It is next to impossible to determine the structure of the hypertrophy by rectal touch alone. Besides, the hypertrophy of the prostate is not the only element; the contractility of the bladder is important in making a forecast. In the chronic lesions of prostatic hypertrophy, congestion predominates. It is supposed that the glandular element predominates when the gland is soft and elastic; that the fibrous element predominates when it is firm and hard. In three cases where the gland was of firm, hard consistency, there had been no modification of the functional symptoms. As regards contractility of the bladder where this is absolutely lost, and has been so for a long time, the operation is useless.

DR. CHEVALIER reported three cases. One he had reported a year ago. The patient had had vasectomy and cystotomy performed without relief; then castration was performed and patient rapidly improved. To-day, urine is clear, urination is spontaneous, no residual urine, and no psychic disturbance. The second case, aged over sixty, good bladder, prostate soft, seemed to be ideal for castration. There was but little improvement after operation; a phosphatic calculus formed and lithotripsy was done. There is some improvement in the case, but it is only slight. The third case, aged sixty-eight, with an enormous prostate, after operation (vasectomy) showed no improvement. Calculi found in bladder; removed by lithotripsy; after this the prostate began to diminish, the urine cleared, catheterization became easier, and was made at longer intervals. Spontaneous urination reappeared. It would seem as if the under-congestion caused by the calculi, the prostate remained enlarged, and improved after their removal. He is inclined, first, to perform vasectomy, then, if this fails, resort to castration.

DR. LOUMEAU reported two cases, each of whom had suffered from the consequences of enlarged prostate for a number of years. In one, complete retention was reduced to partial, with residual urine between 60 and 400 grams; prostate completely reduced in size. In the other, with complete retention, the bladder could be completely emptied spontaneously. In neither was there any post-operative psychic disturbance; there was, however, a feebleness beyond the age of the patients.

DR. CARLIER had nine times performed resection of the vas; twice castration, with complete failure.

DR. DESNOS reported one case in which he had performed vasectomy; before the operation patient had a rather large prostate and urinary disorders fairly marked, but he could urinate spontaneously; after the operation the power of urination was completely abolished, except by catheter. The prostate was unchanged.

DR. MOTZ reported the normal mortality of prostatics at the Necker Hospital 220 cases, with 31 deaths, or 14 per cent., which points to the fact

that 19-per-cent. mortality following operation is not due to operative interference.

DR. LOUMEAU had performed castration and resection of vas twenty-one times. In none of these cases, even after lapse of time, was there any influence on the urinary or genital function, nor upon the condition of the prostate. The only benefit conferred was freedom from orchitis due to catheterization.

DR. NICOLICH (Trieste) since 1895 had in twenty-seven cases done vasectomy, eight were cured, fourteen were benefited, and five showed no change.

DR. HAMONIC presented eleven cases on whom he had performed vasectomy. In seven there was a positive result, in two less positive in which the congestive element was less, and in two, finally, where the congestive element was lacking, there was a negative result. He concludes that vasectomy is uncertain; that it appears to affect the congestive element more than the prostatic tissue itself.

Surgical Intervention in Tuberculosis of the Kidney. DR. M. CARLIER. When surgical interference seems called for in patients with renal tuberculosis, we should examine carefully all the other organs, especially the opposite kidney, and decide between nephrotomy or nephrectomy, according to the results of this examination. If the bladder is seriously invaded nephrectomy is to be avoided. Severity of bladder symptoms is no indication of the condition of that organ, as they may be wholly dependent upon the renal lesion. The speaker had practised nephrotomy in two cases during the previous year in which the bladder symptoms, which had been markedly severe before the operation, had abated considerably after the opening of the kidney. These cases go to show that we need not avoid nephrectomy because of the intensity of the bladder symptoms, and a careful exploration of that organ will show how far the symptoms are dependent upon local lesions.

DR. DURET recalled a case of renal tuberculosis in which the bladder symptoms were of a very intense character, which abated completely after nephrectomy.

Gonorrhea as a Systemic Disease. DRS. JULLIEN and SIBUT. The systemic accidents which may complicate gonorrhea, and which prove the power of penetration of the gonococcus or its toxins into the blood are to-day well proven. Two striking cases are reported. One, a young girl in Saint Lazare, had a vaginal gonorrhea, complicated by articular synovitis, tendosynovitis, hygroma, myositis, and nephritis. There occurred a sudden rise of temperature to 40° C., followed by a meningitis. Under cold baths the trouble grew better. An eruption of rose-colored lenticular spots preceded these symptoms.

The second case was complicated by syphilis; there were vaginal gonorrhea, multiple joint lesions, followed by infiltration and destruction of the mitral valve of the heart. Marked cachexia. Examination of the blood showed gonococci. The authors quoted the case of Alman, who cultivated the gonococcus from the blood of a patient and with the fifth generation inoculated the urethra of a young man. This was followed by a typical gonorrhea, which, in spite of great care, was complicated by epididymitis, cystitis, synovitis, and pleurisy.

Pyonephrosis or Renal Congestion? DR. LOUMEAU reported a case of a woman with an enormous vesical calculus and a ureteropyelitis. Both kidneys were enlarged and painful. Evening rise of temperature, dryness, and subicteric hue of skin; great emaciation; purulent and fetid urine. Calculus was removed by vaginal route and wound left open for drainage of the urinary tract. Lumbar nephrotomy was done on one side

fifteen days later under the belief that there was a pyonephrosis. The kidney was very large, but neither dilated nor purulent; simply congested. The wound was closed by immediate suture. In a few weeks the enlarged kidneys had returned to normal size.

New Observations in Cystoscopic Catheterization of the Ureters. 1. *Hydronephrosis Diagnosticated Clinically; Error Recognized by Ureteral Catheterization.*—DR. ALBARRAN saw a woman, forty-two years old, with Dr. Nélaton. Patient for six months had noticed marked enlargement of the abdomen, slight digestive disturbance, and fatigue. Patient urinated only 3 to 400 grams in twenty-four hours; had two attacks of abundant polyuria. Examination showed a large abdominal tumor on right side of abdomen, smooth, regular, resembling an enlarged kidney or hydronephrosis, and the diagnosis was so made. With the cystoscope, however, a ureteral catheter was passed on the right side to the pelvis, and left *in situ* for forty-eight hours. Analysis of urine from that kidney and from the bladder showed that the two kidneys acted exactly alike, leading him to discard the diagnosis of hydronephrosis. He afterward made an exploratory laparotomy and removed an enormous ovarian cyst, adherent to the liver and to the abdominal wall. Patient rapidly recovered.

2. *Calculus of the Kidney Directly Felt by a Catheter Passed into the Pelvis through the Ureter.*—This patient had, the year before, had a nephrolithotomy performed on the left side. A lumbar fistula persisted, but the patient was not relieved; pain continued, but the hematuria had disappeared; the urine was always purulent. Catheterization of the unoperated side was done, by which fifteen grams of uropurulent fluid was withdrawn, which, by analysis, showed that the kidney function was imperfect. On withdrawing the catheter there was the sensation of grating exactly as when a soft instrument in the bladder touches a calculus.

3. *Epithelioma and Tuberculosis Coexistent in the Same Kidney; Diagnostic Value of Comparison of the Secretion of the Two Kidneys.*—This concerned a patient with tuberculosis, whose left kidney was enlarged, who had hematuria and pyuria. Catheterization of the affected kidney showed marked narrowing of ureter, urine of twenty-four hours was very purulent, small in amount, and contained two grams of urea in twenty-four hours. The other kidney, by catheterization, secreted 1500 grams of clear urine, containing 16 grams of urea. Nephrectomy was performed, and at the same time twelve centimeters of the ureter was removed. Patient rapidly recovered and continues well. The kidney was found to be tuberculous, and was found to contain a nodule which was an epithelioma. The ureter was strictured by tuberculous ulcerations, the pelvis dilated, and contained pus.

Large Tumors of the Kidney. DR. CARLIER. Large tumors of the kidney are not very rare, but their evolution is, in general, rapid; the following case does not correspond to them. This patient was fifty-five years old. In 1887 a varicocele appeared on the left side. Two years later he had a severe attack of hematuria, was seen by Professor Guyon, who found a tumor of the kidney, and advised against operation. Since that time, about every seven or eight months the patient had a hematuria lasting about three days. General condition remains perfect. Examination of abdomen shows a tumor of the left side, and passing beyond the median line, and is as large as a child's head. The author has collected a large number of observations of tumors of the kidney, operated and not operated, and has not found a single case of malignant tumor where the evolution had lasted ten years, and asks whether his patient would have benefited by an operation.

DR. MALHERBE saw a woman, infected by syphilis, who developed a large abdominal tumor which was taken for an ovarian cyst. The patient refused every intervention, but after four years, in 1887, the tumor having

become much larger, she consented to an operation. Two tumors were found; one an ovarian cyst, the other a kidney with hydronephrosis. The microscope, only, would reveal its nature. As regards the tumor observed by Dr. Carlier, would it not be better to remove it if we could recognize that its nature was relatively benign?

Prognostic Value of Varicocele in Tumors of the Kidney. DR. LEGUEU. Varicocele, which is symptomatic of tumors of the kidney, has not only the great diagnostic value attributed to it by M. Guyon, but it has, also, an importance as regards prognosis. By the aid of clinical and anatomopathological notes the author finds that the true cause of compression of the spermatic vein is not the tumor but the degenerated ganglia. He had recently met a case which confirmed his view. The patient had three principal symptoms: hematuria, varicocele, and a tumor in the left lumbar region. He made a diagnosis of cancer of the left kidney and performed an exploratory laparotomy. He found that the spleen was enlarged, but the kidney showed no change. Patient died two days later. At the autopsy a cancerous nodule was found in the left kidney, and there were enormous masses of ganglia along the spine, which compressed the spermatic vein. He thus concludes that whether the varicocele appears early or late, we may expect to find a propagation of the disease in the ganglia. Therefore, we must under these conditions either not operate or else we must seek out and remove the masses of ganglia.

Nephrotomy for Anuria in a Woman Having One Kidney. DRS. CHEVALIER and MAUCLAIRE. The patient, thirty-six years old, had a pyonephrosis ten years ago. The right kidney was removed four years later. One year later the other kidney began to take on symptoms of urophonephrosis at shorter and shorter intervals. September 16, 1897, there was complete anuria. Four days later lumbar nephrotomy was done rapidly. The kidney was found enormously distended, the convex border incised, and almost a liter of urine evacuated. After operation the fistula refused to close, not a drop of urine passed by the ureter, but entirely through the wound. Attempts to catheterize the ureter were not made, as patient's condition did not warrant it. The authors expect to attempt this later, but believe that the fistula should remain open, for she will never be in condition to withstand a second attack of anuria.

THE NEW YORK DERMATOLOGICAL SOCIETY.

TWO HUNDRED AND SIXTY-FOURTH REGULAR MEETING, HELD ON TUESDAY EVENING, OCTOBER 26, 1897.

DR. S. LUSTGARTEN, *President, in the Chair.*

A Case for Diagnosis.—Presented by DR. H. G. KLOTZ.

The patient was a child, ten months of age, the only child of German parents who had been married for two years. The mother was an apparently healthy woman; the father had lately been treated at the German Dispensary for an epididymitis of unknown origin. The child had been healthy and free from any eruption until about a month ago, when the lesions now present began to appear. It is well developed and nourished, apparently healthy; the head is rather large, however, and the open fontanel and rather soft cranial bones suggest a suspicion of hydrocephalus. On the body there are no distinct signs of rachitis. Below the chin, extending over an area about two and one-half by one and one-half inches, in the form of an oval, are numerous gyrated, narrow patches, from one-

twelfth to one-eighth of an inch in width, slightly elevated over the surrounding skin, of a more or less bright red color, covered by thin, closely adherent, yellowish or whitish scales. Some of the patches are not longer than half an inch, while others merge together and form gyrate outlines. Between these ridge-like patches the skin appears perfectly normal, being neither red nor infiltrated. Apparently, there is a tendency to develop new lesions in the periphery of previous ones. On both lips, as well as on the tongue and the mucous membrane of the oral cavity there are found a number of oval or round patches, quite sharply defined, having no epithelial covering, with a clean surface, somewhat whitish near the border. The corners of the mouth and the nose are not affected. There is no discharge, no erosions, no scaling, no fissured papules around the nares, no swelling of the lymphatic glands, no papular eruption within the oral cavity. Dr. Klotz said that without making a positive diagnosis he had strong suspicions of the syphilitic nature of the disease. Such a diagnosis would be strongly fortified by the effect of specific treatment, which he intended to institute at once.

DR. L. D. BULKLEY said if there were no other signs of syphilis, particularly if there were no lesions in the mouth, anus, palms, or soles, he would hesitate before making that diagnosis. He had seen ringworm behave very much like the lesions in the case shown by Dr. Klotz.

DR. J. A. FORDYCE regarded the case as one of syphilis. There was too much infiltration of the tissue to be accounted for by ringworm.

DR. C. W. ALLEN said the case showed a very pretty and unusual configuration of syphilitic lesion.

DRS. JACKSON and ELLIOT made the same diagnosis.

DR. LUSTGARDEN regarded the lesion as one of the papular forms of tertiary syphilis.

DR. KLOTZ, in closing, said he had arrived at the diagnosis of syphilis by exclusion chiefly. He had been in doubt because no other signs of that disease could be found. He had been unable to get a satisfactory history from the father, whose recent epididymitis might have been of syphilitic origin.

A Case for Diagnosis.—Presented by DR. G. H. FOX.

The patient was a policeman, a native of Ireland, thirty-two years old. He had an ulcer on the lower lip which had first made its appearance in the latter part of April, 1897. He visited the Vanderbilt Clinic, where he was seen by Drs. R. W. Taylor and J. R. Hayden, who first regarded the sore as a chancre, although there was no swelling of the glands in the neck. On the 28th of June a piece of the lesion was excised and examined microscopically, with negative results, no evidences of either epithelioma or tuberculosis being found. The patient was given a wash of bichlorid of mercury, and about the 10th of July he was discharged cured. The sore remained well about three weeks, when a barber accidentally scratched it with his finger-nail, and it broke out again. At the present time the ulcer is about the size of a silver quarter and presents a deep, sloughing cavity, with a hardened margin. There are no enlarged glands.

DR. FOX said his own opinion was that the lesion was a gummy tumor. It was possible, however, that it was a simple lesion, such as herpes, which, as the result of irritation had become swollen and indurated. He had seen a number of cases of herpes in this location which had been aggravated by stimulating applications, particularly the bichlorid of mercury. The lesion certainly did not look like an epithelioma.

DR. C. W. ALLEN said there was a possibility that the man originally had a chancre which had at one time practically disappeared, and that, subsequent to this, there was an irritation of the lip which had resulted in

the localization there of the generalized syphilis. The ulcer looked like a syphilitic sore belonging to the later stage of the disease. He had seen extragenital chancres which, after healing, would break out again as the result of irritation and take on all the features of a late lesion without being accompanied by any general symptoms of the disease at the time.

DR. H. G. KLOTZ thought the lesion showed great similarity to certain affections of tertiary syphilis and would ordinarily justify antisyphilitic treatment.

DR. S. SHERWELL said he did not think the sore was an epithelioma, nor did he regard it as the primary lesion of syphilis. He was inclined to agree with Dr. Klotz.

DR. P. A. MORROW thought the differential diagnosis lay between epithelioma and syphilis. The age of the patient as well as the clinical behavior of the sore contraindicated epithelioma. The fact of the absence of any induration and enlarged glands contraindicated both epithelioma and chancre. The objective features certainly suggestive syphilis, and this diagnosis was strengthened by the statement made by the patient that three or four years ago he had a sore on the penis, which, however, he believes was a soft sore. Dr. Morrow said he did not think the sore on the lip would be called a precocious tertiary lesion, because precocious syphilis is apt to be more generalized and is rarely limited to a single lesion developed in that region. His own opinion was that the lesion was a broken-down gumma.

DR. J. A. FORDYCE said that while the sore showed some similarity to tuberculosis, the man's general appearance did not bear out that view; it had also been excluded by the microscopic examination. The speaker thought the lesion was a late syphilitic one.

DR. S. LUSTGARTEN said the history of the case would permit us to exclude tuberculosis. Tuberculosis of these regions is usually only observed in far-advanced tuberculous subjects and is very difficult to heal. Rapid healing, followed by a local relapse, on the contrary, is not infrequently observed in late syphilitic lesions, of which this was probably an example.

DR. FOX said he thought both the epithelioma and tuberculosis could be excluded. It was a question in his mind between a gumma and a simple lesion which had become irritated. He said he would first try the effect of soothing applications, without antisyphilitic treatment.

DR. MORROW said he had seen a number of cases where, after the disappearance of the initial lesion, another sore appeared on the same location and presenting precisely the same characteristics. In one such case a photograph was taken of both the initial lesion and the subsequent sore, and the two were so nearly identical in appearance that they could not be distinguished from one another. Usually, in such cases, some remains of the glands originally indurated can be felt.

DR. ALLEN said that some months ago he had mentioned an instance of chancre on the cheek, which was supposed by him to have originated from a pair of infected tweezers used by a barber. After the chancre had entirely healed, the skin in the same locality again became elevated and took on the features of a gumma, without being accompanied by any exacerbation of the general skin lesions of the disease, but which did coincide with a very badly ulcerated throat. The recurrent lesion in this instance looked more like a gumma than a chancre redux, though it was still in the early period of infection.

A Case of Symmetrical Erythematous Keratoderma (BESNIER).
—Presented by DR. LUSTGARTEN.

The patient was a man aged thirty-five years, with lesions on the palms of the hands and soles of the feet. The disease began about one year ago.

The speaker said he regarded the case as one of symmetrical erythematous keratoderma, as described by Besnier ("*Kératodermie symétrique des extrémités*," by Ernest Besnier, "*International Atlas of Rare Skin Diseases*," ii, 1889).

In the case presented by Dr. Lustgarten there was no clew so far as the pathology was concerned, excepting that since the onset of the disease the patient had gained rather rapidly in weight. This might be a simple coincidence, however. Under the use of thyroid extract and local applications of salicylic acid and resorcin this condition had improved.

DR. BULKLEY said he could throw no light on the pathology of the disease. As regards treatment, he had seen good results follow the alternate application of hot and cold water; the hands should be immersed first in the cold and then in the hot water (as hot as can be borne); this can be done before retiring at night and should be followed by the application of Hebra's diachylon ointment, which should be rubbed in and a cotton bandage firmly applied. A small quantity of salicylic or carbolic acid added to the ointment will increase its efficacy.

DR. FORDYCE said he had a case at the City Hospital last year where the lesions were very pronounced. The condition improved under the use of diachylon ointment.

DR. ELLIOT said that from the present appearance of the lesions in Dr. Lustgarten's case, he did not think it could be classed as one of symmetrical erythematous keratoderma, as described by Besnier. He thought the case could more properly be termed one of hyperkeratosis palmaris et plantaris. He also referred to cases of symmetrical keratoderma which were produced by the administration of arsenic.

DR. FOX said that the various forms of this affection, while presenting different clinical appearances, might still be of the same nature, and he hardly thought it proper to give a distinct name to each. It would be better to class them together, in spite of the fact that in some cases the warty condition is present, while in others it is wanting.

DR. MORROW said that when he first examined Dr. Lustgarten's case, he regarded it as an example of chronic eczema of the palms. Dr. Lustgarten has, however, described it as formerly presenting certain essential features, now absent, which might serve to differentiate it from ordinary eczema. As regards treatment, the speaker said he found the application of salicylic-acid plaster (ten to twenty per cent.), followed by the use of diachylon ointment, very efficient.

DR. S. SHERWELL said he had a case of hereditary keratoderma under his care at the present time. The patient is a woman, thirty-two years old, with a marked thickening of the skin over the palmar and plantar areas, the epidermis measuring from one-eighth to one-fifth of an inch in thickness. The woman states that this condition was congenital. Eight months ago she gave birth to a child in whom this same abnormal condition of the skin in the palmar and plantar areas was found. She did not know of any other members of her family in whom it existed. As regards treatment, Dr. Sherwell said he applies an ointment composed of salicylic acid and resorcin, with the addition of a small amount of white precipitate (about ten grains to the ounce) and alcohol, the latter to render the ointment more bland and penetrable. Internally he gives arsenic, partly for the homeopathic reason that arsenic has been known to produce keratoderma. The speaker said he was in sympathy with the remarks made by Dr. Fox that too fine a distinction should not be drawn between these various forms of palmar and plantar affections, providing the same general characteristics are present. In cases where the palms are involved the condition is probably often aggravated by toil.

DR. KLOTZ suggested cutaneous injections of pilocarpin. In a case which was under his care some years ago, and which he described in a paper on the subject, the condition was very much aggravated by the man's occupation, which was driving. The palms were absolutely dry, but under the use of pilocarpin injections the zone of perspiration gradually extended until it reached the fingers. The improvement was very pronounced and lasting.

DR. LUSTGARTEN, in answer to Dr. Elliot, said that when the case had first come under his observation it was a typical example of symmetrical erythematous keratoderma, as described by Besnier. Under applications of salves containing salicylic acid and resorcin up to ten per cent. of each, his condition had improved considerably.

A Case of Acne Varioliformis.—Presented by DR. C. W. ALLEN.

The patient was a woman, twenty-four years old. The lesions involved chiefly the sides of the nose, nasolabial groove, and forehead, but extended also down in front of the ears and into the external ears. The case was of interest, Dr. Allen said, on account of the extent and peculiar distribution of the lesions, as he did not remember having seen an instance of involvement of the external auditory canal, though he had observed lesions upon the chest and even other hairy portions of the body.

DR. MORROW said that while the case presented certain characteristics which are of common occurrence in acne varioliformis, still he doubted very much the propriety of classing it under that head. The depressions left by the old lesions were very similar to those seen in ordinary acne. In many respects the case resembled acne vulgaris, excepting that the lesions happened to be localized about the forehead and nose.

DR. FOX thought the eruption was very distinct from ordinary acne. The characteristic necrotic center, its peculiar distribution, and the central depression warranted the diagnosis of acne varioliformis.

DR. FORDYCE said he agreed with Dr. Allen. The localization of the eruption, the horny plugs and depressions all pointed to acne varioliformis.

DR. CUTLER said he had seen one case of acne varioliformis where the lesions extended to the ears.

DR. LUSTGARTEN said he also looked upon the case as one of acne varioliformis. He had seen cases where the eruption invaded the ears and extended down on the chest and arms.

A Case of Folliculitis Decalvans.—Presented by DR. FOX.

The patient was a man with an eruption on the scalp. Three years ago he had a similar attack which lasted about three months, and which, when it disappeared, left a considerable amount of cicatricial tissue. His present attack is of recent origin and is improving under applications of resorcin ointment. Dr. Fox said he thought the case was one of folliculitis decalvans.

DR. KLOTZ said the case was very similar to one he showed some time ago, excepting that the lesions in this case were more superficial.

DR. JOHNSTON inquired whether the inflammation about the hair-follicles was more pronounced during the earlier stages of the disease than at present.

DR. FOX replied that the patient had come under his care very recently and he was, therefore, unable to give a complete history of it. He assumed, however, that the course of the disease had been similar to that observed by him in other cases; there are usually a number of raised, erythematous lesions which involves the follicles, followed by a loosening and falling out of the hair. In most cases the lesions assume a serpiginous form.

DRS. ELLIOT and SHERWELL regarded the case as one of folliculitis decal-

vans. The latter suggested the use of white precipitate ointment, as recommended by Quinquaud.

DR. JOHNSTON said that evidently the lesion in these cases was not a suppurative one. The process seemed to be primarily an erythema with an atrophy following closely upon it.

In consequence, it is hardly proper to class it with folliculitis decalvans, in which the inflammatory feature is marked, but rather with the ulerythemata of Unna (especially the sycosiform variety), a group to which lupus erythematosus is nearly related. Names are of little importance, but the case might be called one of cicatricial atrophy.

DR. LUSTGARTEN said that in folliculitis decalvans the follicular inflammation is sometimes accompanied by suppuration, but even without that it results in comparatively deep, irregular scars. Cases like Dr. Fox's have been described by Besnier under the name of *alopecie cicatricielle* or *pseudo-cicatricielle*, and under different names by other French authors. He agreed with statement made by Dr. Johnston regarding their resemblance to lupus erythematosus.

DR. FOX said that in most of the cases he had seen there was no sup-puration, but an inflammatory condition involving the follicles and followed by loosening of the hairs.

DR. JOHNSTON said the latter would also occur from atrophy of the skin in lupus erythematosus.

DR. GEORGE T. JACKSON said the case shown by Dr. Fox had changed considerably in appearance since it first came under observation, and before any treatment had been employed. At first there were decidedly more pustular lesions and it was more pronouncedly follicular than now. He called attention to the fact that we may have to deal with different varieties of the same affection.

DR. ELLIOT said he agreed with Dr. Jackson that there are different varieties of folliculitis decalvans. He referred to three cases he had seen, all in adult life, which he thought could properly be classed under Besnier's description of alopecia innominata.

DR. LUSTGARTEN said he did not think the disease was primarily a follicular one, but an inflammatory process of the chorion, extending to the periphery and leading to atrophy. The inflammation is more pronounced and lingers longer in the follicles, which accounts for the follicular aspect on some places. While it thus shows a certain resemblance to lupus erythematosus, it has abundant points of a differentiation to easily prevent an identification.

As regards therapeutics, the speaker said that years ago he treated a case successfully by scarification of the inflamed border, followed by the application of mercurial plaster.

A Case of Hydradenitis Papulosa.—Presented by DR. ELLIOT.

This case, the speaker said, he had already shown on a number of different occasions, as the diagnosis had given rise to much discussion. When it was first shown, many of the members pronounced it syphilis. The patient had recovered entirely by the use of hot baths and without any antisyphilitic treatment. The speaker said that the eruption which the man had had was the result of an inflammation of the sweat-glands.

DR. ALLEN said he was glad to see that the case had turned out as it did. He had regarded it as one of syphilis when the patient was first shown.

DR. ELLIOT said he thought it not infrequently occurs that cases of so-called acne varioloformis are really cases of hydradenitis; in this affection there is a deep-seated inflammation which goes on to destruction of the glands.

A Case for Diagnosis.—Presented by DR. ELLIOT.

The patient was a young man with an eruption, which began on the face about one year ago. In April, 1897, it also appeared on the elbows and knees, and at the present time it involves the face, neck, elbows, and knees. The eruption consists of vesicles and papules, and gives rise to intense pruritus, causing continual scratching, the scars of which are apparent. Since last April the man has been employed as a workman by the Barber Asphalt Company; the eruption on the face appeared before that date and while he was employed as a driver.

DR. CUTLER thought the case was one of dermatitis herpetiformis.

DR. BULKLEY agreed with Dr. Cutler.

DR. FORDYCE said the clinical appearances of the case corresponded more closely to dermatitis herpetiformis than to anything else. It was unusual, however, for dermatitis herpetiformis to remain confined in one locality for such a long period.

DRS. JACKSON, SHERWELL, and FOX were also inclined to regard the case as one of dermatitis herpetiformis.

DR. JOHNSTON said the case was very similar to one which had been presented for him by Dr. Morrow in May, 1896, under the title, "Papular, Persistent Dermoneuritis." The appearance and localization of the lesions was almost identical. In his case the lesions, after they had existed about four years, became hard and keratotic. In the case referred to by the speaker, no positive diagnosis was made, the general opinion being that it was unique.

DR. LUSTGARTEN said that while the lesions were not typical of dermatitis herpetiformis, there was no other diagnosis left. He thought that further study of cases of this character would probably result in the adoption of a particular name for them.

A Case of Morphœa.—Presented by DR. ALLEN.

The patient was a young man who, early last summer, noticed the appearance of a white patch of skin on the right side of the face, extending upward along the anterior margin of the ear and for some distance into the scalp. The lesion was slightly elevated above the normal skin, was waxy in appearance, and firm to the touch, with an abrupt border which was also appreciable to the touch. In September the patient was first seen by Dr. Allen, who made a diagnosis of morphœa.

Under electrolysis, applied every five to seven days, the lesion has greatly improved in appearance; there is less infiltration, the waxy character has disappeared, and the border is no longer appreciable. At one time the lesion had a violaceous border.

The outline of the original extent of the lesion, including a streak down to the chin and two small white areas upon the chin, is mapped out by the marks left by the electrolytic-needle punctures.

DR. SHERWELL regarded the case as one of circumscribed scleroderma.

DR. MORROW agreed with Dr. Allen. Both speakers thought the result of the treatment was very satisfactory.

DR. BULKLEY said he did not think the name morphœa should be applied to irregular patches of this character. That term, he thought, should be confined to individual and separate patches or lesions which have a distinctly violaceous border and are accompanied by a more or less marked thickening or lardaceous condition of the tissues. In Dr. Allen's case he thought the term localized scleroderma more applicable than morphœa. In reply to a question, the speaker said he recognized an essential difference between localized scleroderma and morphœa.

A Case for Diagnosis.—Presented by DR. ELLIOT for DR. BRONSON.

The patient was a woman with a skin eruption associated with tuber-

culous glands in the neck, who had already been shown at previous meetings (JOURNAL OF CUTANEOUS AND GENITO-URINARY DISEASES, September, 1896, p. 352, and *ibid.*, May, 1897, p. 225). The cutaneous lesions shown at present had existed for about a month. It had not appeared for two months following the last operation for removal of the glands, which was in July. In all, there had been some six operations. The eruption usually appears about a month or so after the operations. The last operation was a very bloody one owing to an accidental injury to a large vein. After this the eruption did not appear for two months. In appearance it varies but little from former attacks. At first it is either papular or erythematous, of a dusky-red color, occurring in circumscribed patches that slowly increase at the periphery. There is some scaling, occasionally pustulation, but no scarring nor atrophy like that observed in lupus erythematosus, though there is a noticeable ischemia where some of the patches have been. There seems no tendency to the development of new patches at the sites where former patches have been.

DR. FORDYCE thought the case was very interesting and ought to be investigated pathologically.

DR. CUTLER regarded the case as one of true lupus.

DR. LUSTGARDEN said he agreed with Dr. Fordyce that in order to arrive at a correct diagnosis, a bacteriological examination was necessary. It would be interesting to learn whether the affected glands in the neck were tubercular or not. A thorough investigation of cases like this one would help elucidate the question whether there was any connection between lupus erythematosus and tuberculosis.

Report of Cases Presented at Previous Meeting.—DR. ALLEN stated that his patient with an epitheliomatous lesion of the lip, shown at the May meeting, had recovered entirely under the use of the acid nitrate of mercury, locally applied, as suggested by Dr. Sherwell.

DR. LUSTGARTEN said that his case of gangrene of the skin, produced by the X-ray (shown at the May meeting), was almost well, *i. e.*, after ten-months' duration. He had found that the best treatment was a moist dressing with liquor Burowi, while salves containing cocain, opium, etc., failed to give relief.

DR. ELIOT reported that his case of follicular keratitis recovered under the use of salicylic-acid ointment.

DR. BULKLEY reported that his case of generalized scleroderma, shown at the May meeting, had improved considerably under the use of hot baths and inunctions of lanolin.

DR. ALLEN showed the photograph of a case which he had recently seen in Jersey City by the courtesy of Dr. Dickinson, and diagnosticated as one of mycosis fungoides. The patient died soon afterward, and, based upon the views of various physicians who had attended him and of Dr. Krauss, who had examined sections of the skin, the daily papers reported that death was due to leprosy. The patient was a native of New Jersey; he had never traveled far from home and had never, so far as he knew, come in contact with a leper.

If the case is one of true leprosy it is interesting as another instance of development of the disease in some "mysterious" manner among our native population. The facies is truly very characteristic of lepra, but the many pedunculated and sessile tumors upon the body suggest more strongly mycosis fungoides.

DR. FOX said the patient referred to by Dr. Allen had been under his observation for some time at the Skin and Cancer Hospital. At first it was thought he had a general eczema, but after about one year tumors began to develop on the trunk and face, and the diagnosis of mycosis fungoides

was made by Drs. Elliot, Bulkley, and himself. There was no suspicion of leprosy. The man's condition gradually grew worse and he left the hospital. Dr. Fox said he had recently received a letter from a physician in Jersey City, stating that he had made sections of the skin in the case referred to, which showed the bacilli lepra.

DR. ELLIOT said he remembered the case very well. He fully agreed with Dr. Fox that the case was one of mycosis fungoides. As regards the development of leprosy in this climate, the speaker referred to a case which was shown before the Society about four years ago. The patient was a 'long-shoreman, who lived in Hoboken and had never been out of the country.

Selections.

CUTANEOUS DISEASES.

In Charge of Dr. Boleslaw Lapowski.

Mercurial Eruptions. O. ROSENTHAL (*Wien. Mdz. Wchschrft.*, 1897, Nos. 42, 43).

Eruptions after Mercurial Inunction. G. G. STOPFORD TAYLOR (*The Brit. Jour. of Derm.*, 1897, p. 346).

Some writers claim that the eruptions, following the use of mercury, are due not to the metal itself, but to the impurities incorporated in the drug. While this may be sometimes the cause there are, nevertheless, recorded facts enough proving that the eruption was due to the drug alone. The clinical appearance and intensity of the eruption is various, from a simple folliculitis—which, by the way, never undergoes suppuration—and urticaria to the severest forms of erythema, combined with hemorrhages in the central portions of the erythematous patches. The different forms of eczema occur frequently, purpura and bullous dermatitis not so often. The eruptions not only attack the skin, but the mucous membranes as well, and sometimes the latter only are affected. An intensely developed eruption, when combined with general symptoms, as malaise, headache, chills, and high fever, may lead to a fatal end. The outbreak may take place during the employment of the drug, even in the beginning of its application, but sometimes it appears five months after the cessation of the use of the remedy. The mercurial exanthem may be manifested in three ways: locally, spreading by contiguity; by the internal action of the absorbed mercury, appearing in various places, and by the combination of the two previous modes, no matter what method of treatment, or what preparation of mercury we use. Even inhalation of mercury may set up a general erythema with consequent exfoliative dermatitis. Outside of the doses, the individual disposition toward mercury has to be taken in account. The author does not recognize an absolute idiosyncrasy to mercury; according to him, if we were able to try in a refractory patient the different mercurial preparations, we would find one agreeable to the system. The idiosyncrasy may be only a relative one, provided there are no changes in the kidneys, no external influences, or psychical disorders which will account for the eruptive action of the mercury. Among the external influences, due regard is to be paid to climate. European emigrants are not only more inclined to mercurial idiosyncrasy during their sojourn in the tropical regions, but retain the same

predisposition for a long time after their return. According to Schoenlein the diminished tolerance to mercury during a sea voyage or a sojourn at the seashore is due to the presence of sodium chlorid and similar salts in the air. That idiosyncrasy can be acquired is shown by the sudden appearance of an eruption in laborers who have with impunity handled mercury, and who can be relieved from their trouble only after changing their occupation. Such an acquired idiosyncrasy may be lasting, or may only remain for a short time, while the inborn idiosyncrasy is permanent. The eruptive action of mercury is due either to products created by mercury in the skin itself, or to the chemical changes which mercury undergoes in the system, acting upon the peripheral nerves, or upon the vasomotor center in the medulla oblongata. An explanation of the comparatively rare appearance of a mercurial eruption after internal use of mercury is found in the way mercury is taken up in the intestines by the portal system to the liver, from which it is eliminated with bile into the intestines, thus reaching the general circulation in a very small quantity.

G. G. Stopford Taylor's third case emphasizes some points, namely, the importance of psychical disturbance mentioned in the previous article. The patient, twenty-one years of age, suffered from a swollen, painful knee, headaches, and symptoms of general malaise, combined with restlessness and morbid imaginings, was put under inunctions on account of syphilis in her family, her father having died from "gumma of the brain." One ounce of ungt. hydrar. oleat., twenty per cent., was divided into five parts—one part used each day—being rubbed into a different part of the body each time. After rubbing the arms, legs, and abdomen, a rash appeared upon her forehead, and on the fourth day "a bright red rash" all over the body. About two days later she began scaling in small and very large pieces, giving a clinical picture of acute exfoliating dermatitis. She became gradually unconscious, and died five days after the first appearance of the mercurial eruption. The second case of exfoliative dermatitis following mercurial inunction, also the first case of universal separation of the horny layer of the epidermis after mercurial inunction, reported by the author, recovered after abandoning mercury.

Ulcerating Granuloma of the Pudenda. A Report on a Recently Described Form of Ulceration Occurring in the West Indies.

JAMES GALLOWAY (*Brit. Jour. of Derm.*, April, 1897).

Remarks on Ulcerating Granuloma of the Pudenda. CH. W. DANIELS (British Guiana) (*Brit. Jour. of Derm.*, September, 1897).

Ulcus Serpiginosum Vulvæ. A. H. FREELAND BARBOUR and NORMAN WALKER (*Scottish Med. and Surg. Journal*, vol. i, No. 7, 1897).

Before giving the history of a case, which occurred in England, Dr. Galloway submits a short account of the clinical characters of the same affection, which under the title of "The Lupoid Form of the So-called Groin Ulceration in British Guiana," was described by Messrs. Conyers and Daniels in the *British Guiana Medical Annual* (1896). The disease is better known to residents in warm climates; it commences by the formation of papules, which may increase and form nodules with a smooth, shiny appearance, and of a pinkish color. The nodules often undergo superficial ulcerations or excoriations, bleeding readily. Watery discharge oozes out, not only from the ulcerated surface, but also from the scar tissue, which replaces the ulceration. The scars are irregularly pigmented from the beginning, but when of long standing they are sometimes devoid of pigment. Cicatrization does not stop the morbid process, as the scar frequently breaks down

at various points, owing to the development of new nodules of granulomatous tissue. The disease usually affects the neighborhood of the pudenda in males and females, but it is not known whether it occurs in other situations. The line of extension is defined by a finely nodular margin, especially developed where regions with hair-follicles or sebaceous follicles are affected. The disease mostly spreads in continuity but not unfrequently by contact with a diseased patch. The discharge gives rise to a very offensive peculiar odor. The duration of the recorded cases varies from a few months to seven years, and longer. The average age of the cases is twenty-seven years. The female sex is more prone to be attacked, and the disease almost always starts in the labia or vagina. To these accounts Galloway adds the history and microscopical examination of a similar case, which occurred in England in a negro, a native of the Island of Dominique, aged twenty-four years, and treated in the Middlesex Hospital by Dr. Pringle. The patient denied syphilis and gonorrhea, and there is no evidence that he has been affected by these diseases. No family history. When fourteen years of age he left his native land and worked in different places in the Gulf of Mexico to his nineteenth year; from then to the time he first noticed his present disease he lived in Canada, London, or Paris. At the age of twenty-three, while in Paris, he first noticed a black spot on the inner surface of his thighs. A week afterward a "boil" appeared in the right groin and the "sore" spread downward and upward, presenting on the day of his appearance in the hospital an extensive ulceration of the skin of the groin and perineum. An area of granulation tissue, situated on a slightly indurated base, occupies the right inguinal region, spreading to the left groin, symphysis pubis, scrotum, perineum, and anus. Here and there beyond the margins are hardened nodules, embedded in the skin, but not ulcerating. The corpora cavernosa are enormously swollen and knotty in parts. He has frequent erections, which cause no pain. No enlargement of lymphatic glands can be felt. No disease of any of the internal organs can be ascertained. Histological examination showed the lesion to consist of a "round-cell" infiltration (leucocytes, plasma-cells, mast-cells, and elongated cells with spindle-shaped nuclei) appearing in the upper regions of the corium, which extended upward into the papulæ, and also to a variable extent downward toward the subcutaneous tissue. The connective and elastic tissues of the corium disappear under the influence of the infiltration, and its place is taken by the new infiltration. In the other parts of the growth the infiltration cells disappear and newly formed straight, densely arrayed bands of connective tissue occupy the situation of the infiltration, forming scars. There is no tendency to caseation nor to suppuration in the masses of infiltration. The infiltration in the papillary portion raises the corium in the form of a small tumor, and the epithelium becomes stretched over it. In spite of the stretching and thinning of the epithelium and its infiltration with leucocytes, complete disappearance of the epidermis appears to be uncommon. The blood-vessels supplying the diseased structures seem to be only moderately distended. Many preparations were examined for micro-organisms but with negative results. (Staining method.) The bacillus tuberculosis was not found, nor did inoculations upon guinea-pigs develop the disease in the animals so treated. The best treatment is complete excision of the diseased tissue and the underlying scar. The exact cause of this disease is as yet unknown.

A case having many clinical symptoms in common with the foregoing, but under the title of "*Ulcus Serpiginosum Vulvæ*," is reported by Barbour and Walker. This case has a history of its own in the annals of British medicine, having passed several clinical diagnoses, till it came under the observation of the authors, who, supported by Unia's personal opinion, at-

tached the (supposedly) correct name to this most interesting affection. The history of the case is as follows: The woman is now sixty; was married when she was twenty-two years of age, and five years later had her first child, at full time and healthy. She passed through seven more confinements, giving birth to seven children, five of whom are still alive and well. One died at three years of age of scarlet fever, another at eighteen months, of bronchitis, and one at twenty-four hours after birth, of convulsions. She had two miscarriages, one at the fourth month after the third confinement, and another at the fifth month after the sixth child. No satisfactory reason can be assigned for these two miscarriages. Her first husband died when she was forty-one; and some time after this she fell over a cask and received a bruise on the genitals which she says left a hard lump which persisted for months. She saw Dr. A. Macdonald, who described her case in the "Trans. of the Edin. Obs. Soc.," 1883-'84, under the title, "Lupus of the Vulvo-anal Region," adding a colored plate of the appearance of the external genitals at that time. At that time she had near the anterior commissure two nodules of a deep rose color. On separating the hypertrophied labia majora an ulcerated surface, from which a grumous fluid was exuding, was seen. The ulcerative action destroyed almost completely both labia minora, spreading upward and downward to the ano-perineal region. The vagina and uterus were healthy. Neither the ulcerated surface, nor the borders were hard. No enlargement either of the inguinal or of the pelvic glands; other organs in healthy condition. The diseased parts were removed by scissors and cautery, and three months later the patient was discharged cured. The microscopical examination of the removed tissue revealed "sufficient evidence to warrant a diagnosis of lupus." Three years later the patient reappeared with both labia majora destroyed and the ulcerative process extending again as far back as the anus. Dr. Croom removed the diseased portion by the thermocautery, and in April, 1887, the patient was dismissed. In the mean time the diagnosis published was questioned, lupus having been diagnosed instead of syphilis, which, according to its advocates, is supported by the miscarriages and the clinical features. The patient returned again in August, 1896, to the infirmary, with an ulcerated surface covered with pinkish-red granulations, extending over the external genitals and perineum. At the margins the skin is both undermined and overhung by the new formation. On this raw surface the vagina opens, as a contracted canal, and the orifice of the anus hardly allows the insertion of the tip of the little finger. The diseased tissue was removed with the sharp spoon, and an application of pyrogallic acid was made. The patient after a month's time left the hospital with a perfectly clean scar on the place of the former raw surface. But about four months after the operation the disease again began to show itself at the upper left margin of the cicatrized surface and also near the anus. The microscopic examination of portions of the removed tissue showed the process to be the *ulcus serpiginosum* described by Unna in his histopathology of the skin. The diagnosis was confirmed by Unna's personal examination of the sections. The sections stained with methyl-blue revealed a number of small bacilli in the tissue, though not in such abundance as in Unna's cases.

Trichomycosis Palmellina (Pick). DR. EISNER (*Archiv. f. Derm. u. Syph.*, vol. xli, p. 39).

In 1875, Pick, under the above name, described a disease which usually affects the hair in the armpits, on the pubis and the inner side of the thigh. The disease mostly attacks the hair in the axilla, covering it with a jelly-like yellowish mass, which sometimes encompasses the whole and sometimes

only lies on the hair-shaft. The surface of the hair is rough, uneven, its upper end instead of being thin is covered with a cap-like mass. The hair may be attacked from its follicular opening to its end; the intrafollicular portion is always found free. In some hairs the microscope will reveal wart-like masses upon the hair-shaft, while macroscopically nothing abnormal can be seen. When the hair is freshly epilated the mass is easily detached from it; but when the mass is dry it cannot be removed without splitting or breaking the hair. The most scrupulously clean person may be attacked with the disease, especially people with light hair. Some writers think colored sweat in the axilla is due to the same parasite. Microscopically, the jelly-like mass either lies on the surface of the hair or under some detached cortical scales, or between split fibers of the hair-shaft. In the last instance the hair may be broken, ending with a brush-like termination. In stained sections of the affected hair globular bodies, consisting of cocci, are seen, especially in places where the jelly-like mass (zoogloea) is thin. The cocci are arranged either in clusters or in rows, or in groups of four, upon the surface, and sometimes in the inner portion of the hair. The cocci upon sugar-agar or bouillon will produce a fresh colony growing very rapidly, in shape of round, small clusters, the central part being of a white color, while the border is grayish. Sometimes a yellowish border will surround a yellow center, and not seldom we will see a grayish border and a yellow center. Microscopically the cultures present an encapsulated diplococcus, which is easily stained by the Gram method, and which shows identical microscopical characters, whether coming from a white or gray colony. The cocci liquefy gelatin.

Trichorrhæxis Nodosa Barbæ (Kaposi) and Its Cause. EDWARD SPIEGLER (*Arch. f. Derm. u. Syph.*, vol. xli, f. 1, p. 67).

This affection must not be identified with *pedra*, a hair disease prevalent in Colombia. The former affects mostly the hair of the beard; in women, the hair of the scalp, but upon the scalp of men it occurs very seldom. In Vienna it was not seen by the author, while Hodara in Constantinople saw usually the hair upon the scalp of women affected, and quite seldom upon the beard of men. Physicians are frequent victims of this disease. The author sees a reason for this in the supposition that it attracts their attention. Hodara found in the changed hairs a micro-organism, which he cultivated and inoculated with success. After staining the hair with anilin water—gentian violet, or with carbolfuchsin-analin—we can see single bacteria and a good number of cocci in the places corresponding to the white nodules of the diseased hair in the subepidermal portion of the hair, and in the wall of the hair-follicle. The bacteria are 1–2 m. in length, arranged in threads, and are formed by separate distinctly visible segments. The author cultivated the bacilli successfully upon agar and potatoes, obtained bacilli from 1 to 10 μ in length and about $\frac{1}{2}$ μ in width. He inoculated a gelatin-culture upon the beard-hair of a man with success, and the cultivated bacilli could not be differentiated from those inoculated. The same results have been obtained by Hodara and Markusfeld. From his experimental researches the author draws some important conclusions in regard to the treatment of this disease. He advises, in view of the presence of the bacilli in the wall of the hair-follicle, epilation of the hair, combined with repeated shaving.

Book Reviews.

The Treatment of Skin Diseases. Therapie der Hautkrankheiten. By L. LEISTIKOW, M.D., with a preface by P. G. UNNA. Octavo, xv, pp. 408. Leopold Voss: Hamburg and Leipzig, 1897.

The scientific researches and the practical work done in the Dermatological School in Hamburg have contributed much to the progress of modern dermatology. From that school came forth *des idées mères*, which afterward were developed and fostered by the researches of other investigators. For a period of years the bricks and mortar of skin pathology have been gathered there by the pupils of the school, till they were disposed of by the master mind in a monumental work, entitled "The Histopathology of the Skin." The present book of Leistikow is a natural consequence of Unna's labors.

Although the title of the book is a common one, the way in which the subject is treated greatly differs from all books which deal with the same matter; it is the first attempt, and it may be stated at once—a very successful one, to place the treatment of skin diseases upon a pathological basis, where the pathology of the disease is established, not omitting the empirical achievements of clinicians in treatment of those diseases, the pathology of which is as yet obscure.

The book comes from the pen of a man, who for many years with great success performed the task of familiarizing in daily lectures, the vast number of visiting physicians with the achievements and methods of the School of Hamburg. No wonder, then, that the genius loci is perceptible upon every page of the volume. The reader will learn from it not only to determine what remedy is to be used, but also to individualize the method of application of the prescribed drug; thus, not only curing the disease, but doing it with great comfort to the patient, who, instead of being covered with the old time-honored, greasy, repulsive ointments, receives for his use a pleasant, active preparation of the same drug in the form of a plaster-mull, gelatin, etc.

Although there is an extravagant *embarras de richesses* of prescriptions, all have been tried either by the author himself, or are used with good results by other clinicians. A new feature in the book is the part where the author considers the importance and treatment of internal diseases, which are supposed to be the cause of the skin affection or accompany it as an important symptom. It is the first German book where more than passing attention is given to that subject.

A chapter dealing with cosmetics, although not strictly coming under the title of the book, would be appreciated by a good many practitioners, and it is to be hoped that the author will add one in the next edition of the work.

BOLESŁAW LAPOWSKI.

Ichthyol in Variola.—CASSENKO (*Wratch*, No. 13, 1897) recommends the drug in this form: ichthyol, 10; fat, 60; lanolin, 20; having used it in ten cases. It is rubbed in t.i.d. as soon as the papules appear. There was little tenderness over the sites of eruption, the temperature never rose high, and desquamation was completed in three or four days. In several cases, treated from their beginning, there was no inflammation of the skin and subcutaneous tissue. No toxic symptoms were seen.

Therapeutic Notes.

Protargol in Gonorrhea.—PROFESSOR NEISSER (*Dermatologisches Centralblatt*, 1897, No. 1) is sponsor for this latest of silver-containing compounds. It is an impalpable, yellow powder containing eight per cent. of the metal in protein compound. It is soluble in water and is not precipitated by chlorids or alkalies. It comes down as protargol with concentrated hydrochloric acid, but redissolves on addition of water. This property should enable it to penetrate the tissues better than any other silver salt. In solutions of one-quarter- to one-per-cent. strength, it is unirritating in most cases and may be used from the beginning. Its antiseptic power, shown clinically, though not experimentally thus far, is equal to any known preparation. Having determined the presence of the gonococcus, three injections a day are given, two each for five minutes, one for half an hour. The action is thus continued without reducing the strength of the solution. After a few days, only the long injection is used, and on account of its mildness may be continued for three weeks without injury, another manifest advantage. It is best to begin with a weak solution. Neisser says nothing has ever given him such good results as protargol.

Urticaria.—WOLFF (*Journ. of Amer. Med. Assn.*, vol. xxix, No. 25) gives dram doses of a supersaturated solution of sodium phosphate (60–80 grains to the dram) every three hours, and claims great efficacy for it. He uses in conjunction externally this lotion:

R	Pulvis calamin	} aa	.	.	.	.	.	.	.	.	6
	Zinci oxid.										
	Acid carbol.	.	.	.	.	.	.	.	.	.	2
	Aq. calcis	.	.	.	.	.	.	.	.	.	64
	Aq. Rosæ	.	.	.	.	.	.	.	.	.	128.

The influence of the phosphate is probably based on its hepatic stimulant and intestinal antiseptic properties.

Suppurating Bubo Due to the Gonococcus. DR. VON HANSTEEN (*Archiv. für Dermat. und Syphilis*, March, 1897, p. 397).

To the recent disputed question between Bumm and Wertheim whether the gonococcus is capable of producing suppuration in the connective tissue, this study by V. Hansteen furnishes an important point against Bumm's views that the gonococcus is specifically a parasite of the mucous membrane. In one case of suppurating bubo occurring in a gonorrhea, the author was able to carry out the complete chain of proof by culture and inoculation that the bubo was really due to the gonococcus. October 20, 1896, infection occurred. November 1st, bubo in left groin. November 3d, numerous gonococci in urethral discharge. November 16th, fluctuating bubo and periglandular phlegmon. Incision, pus found to contain only gonococci. In twenty-four hours culture from the pus from bubo upon Wertheim's human serum pepton-agar showed colonies of gonococci. Inoculation of male urethra; five days later, typical urethritis containing gonococci. In two other cases of suppurating bubo the presence of the gonococcus was established.

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Original Communications.

A PATHOLOGICO-CLINICAL CLASSIFICATION OF THE DISEASES OF THE SKIN.

By LOUIS A. DUHRING, M.D.,

Professor of Diseases of the Skin in the University of Pennsylvania.

IN bringing the subject of the classification of the diseases of the skin to the attention of those interested in cutaneous medicine, it need scarcely be said that I regard it as of importance. Classification serves to bring together similar morbid processes and diseases, and allows of their being conveniently placed in divisions subdivisions, and groups. It enables us to arrange them according to some general plan. This should be, as far as possible, in conformity with the principles which govern the laws of morbid processes invading the economy in general. The pathology of the integument is governed by the same general laws that apply to the pathology of the other organs of the body. The peculiarities of the integument, including its complex anatomy, and the fact that it is the enveloping and exterior covering of the body, and, therefore, subject to innumerable invasions of different kinds from without, is the main point wherein it differs from other organs. In making use of the term medicine I take this opportunity of stating that, in my opinion, it should be employed in its broadest sense and application. By the expression cutaneous medicine I would include all morbid states that involve the integument. I make this observation because the tendency in recent years has been to contract the definition and signification of the term medicine. This, I think, should be deprecated. In our eagerness to foster the child the parent should not be forgotten.

Some authors, however, do not look upon the subject of the classification of the diseases of the skin as of importance. Thus, we note, even at this active dermatological epoch, certain works on cutaneous diseases by accomplished dermatologists written with entire disregard of any classification, the diseases discussed being arranged in most instances alphabetically, without reference to their clinical, etiological, or pathological relation to one another. In extenuation of this lack of arrangement it is argued by these authors that no existing classification is satisfactory for purposes of study or teaching, and that under these circumstances it is best not to attempt any systematic arrangement or grouping of the diseases, but to present them simply in alphabetical order. Some would contend, even, that cutaneous medicine is thus simplified. This latter argument I would regard as weak and unworthy of serious refutation. To the author or compiler of the book it is an easy, but to the student a very unsatisfactory, method of dealing with the subject matter in hand, and I must protest in the most emphatic language at my command against treating a large and important department of medicine in this manner. The subject matter discussed in the book is thus to be found in a disjointed or confused state; similar diseases etilogically or pathologically are disassociated and placed side by side, with nothing in common except that their name may happen by chance to begin with the same letter of the alphabet. The result is that a volume prepared on such a basis is not a treatise, but merely a descriptive dictionary. If it be called a dictionary, no objections can be raised against it. My criticism in these cases is not against the subject matter itself, but against the manner of presenting it. Treatises on diseases of the skin and dictionaries on diseases of the skin both have their uses, but they do not cover the same field in literature and should be clearly distinguished.

The classification of cutaneous diseases has been made the subject of special thought and study from the time of Plenck and Willan (a hundred years ago) up to the present date. Many schemes have been devised, based upon the cutaneous lesions, the normal or the pathological anatomy, the regions of the body involved, the special organs, parts, and strata of the skin, the etiology of the diseases, and various combinations of these several ideas. I shall not attempt to analyse the merits or demerits of these several trains of thought, but shall devote my attention to one in particular, to which reference will be made presently. It will be in place here to consider what should be the object of a classification. It should be, I think, to bring together similar diseases, either in form or in nature, and to

arrange and group them, as far as possible, into classes, divisions, and subdivisions, for purposes of recognition and study. We do this for practical or for scientific purposes, or for both combined. The most useful method of classification, it seems to the writer, is one which combines, to the extent the subject will admit of, both the practical and the scientific aspects of the question. As physicians it certainly should be our first aim to make the scheme of practical value in the consultation-room, so that the recognition of the diseases may be made as easy and definite as possible. This aspect of the subject, it need not be said, should be supported by science whenever this can be done. Experience shows that practice and science are in harmony and unison in almost all instances, at least up to certain points, and that, therefore, it is possible to make classifications practical and at the same time scientific. The latter aspect by no means precludes the former.

Etiological classifications, I admit, are ideal, and in cases where our knowledge of disease permits us to carry out this idea the results, as a rule, are satisfactory. But experience shows that there are limitations, often abrupt, to etiological classifications. While some diseases of the skin are due to definite causes, as, for example, the zoo-parasitic and phyto-parasitic diseases, many of them are due to different and varied causes. Thus, by way of example, note the diverse causes capable of giving rise to the well-defined diseases we designate herpes zoster and acne. Similar instances could be greatly multiplied.

The grouping of diseases according to the parts and structures of the skin involved is at first sight very attractive. Thus, it would seem as though a class might properly and satisfactorily be devoted to the diseases affecting the appendages of the skin—to the glands, hair, and nails; and it is true they may be so grouped with a certain degree of satisfaction, but not in a scheme which rests upon general pathology. The appendages are an integral part of the integument, and consequently cannot be separated from the tissues surrounding them. They are fed by the same set of blood-vessels, lymphatics, muscles, and nerves. The epithelium of the glandular and follicular systems of the integument are intimately connected and blended with the epithelium of the general surface, so that processes affecting the epidermis are prone to invade the follicles and ducts.

The classification of the diseases of the skin according to their general and local pathology has always seemed to me both practical and satisfactory. The scheme introduced by F. Hebra many years ago impressed me early in my professional life as being useful, and

at the same time scientific. The *integumentum commune*, the seat of all cutaneous diseases, is an integral part of the economy, and is subject to most of the morbid processes that invade other organs of the body, and for this reason is subject to the same or similar laws in pathology. For these and other good reasons I think such a classification is preferable to any other. That it is far from perfect I should be the first to admit, but perfection is not to be looked for in dealing with an inexact science like medicine. The scheme about to be submitted may be regarded as a modification and elaboration of that of F. Hebra. It is regarded as a distinct improvement on the writer's classification used in his several earlier published works on diseases of the skin. In addition to the arrangement of the diseases in classes based on general pathology, prominence is given to the clinical features of each disease by placing them into natural or convenient divisions and subdivisions. The primary lesions in which disease manifests itself in the skin are made to play a secondary part in the classification. In admitting them their value is not overestimated. They are employed merely for the purpose of serving as an aid to the clinician. That they have proved of assistance in diagnosis has been recognized by nosologists from time immemorial.

Lest a classification of the diseases of the skin become complicated, or too large and cumbersome, it is advisable to confine, as far as possible, the terms introduced to well-known and generally recognized types of disease. All superfluous or unnecessary matter, including varieties of diseases, composite diseases, ill-defined and obscure maladies, should be excluded. Thus, to exemplify concisely this idea in a practical way, acne and lichen representing well-known types of disease, are all-sufficient in a classification. To introduce the varieties, common or rare, of these or other similar diseases, would open the way to confusion. I believe that the simpler a classification can be made, as concerns the subject matter introduced, the more generally useful it will prove. Hence, in the plan about to be submitted, the framework is not overweighted with varieties of diseases or other accessories. The ideas involved in the classification should be made plain to the student, but no attempt should be made to crowd in too much material, lest the general principles involved be obscured.

With these preliminary observations I beg leave to present the following classification, based upon pathology, pathological anatomy, and symptomatology. The foundation, however, is pathology, symptomatology being of secondary importance. While the latter is of distinct aid to the clinician and diagnostician, at the same time it

might be omitted without the value of the classification being thereby impaired. It may be termed a pathologico-clinical classification.

CLASS I.

ANEMIÆ—ANEMIAS.

[*Transient or Persistent, General, or Local.*]

CLASS II.

HYPEREMIÆ—CONGESTIONS.

[*Process Congestive, Diffuse or Circumscribed, Chiefly Superficial.*]

Predominant Lesions.

Erythema Hyperæmicum.	} Active.	} Erythematous.
Livedo, Cyanosis.	} Passive.	

CLASS III.

EXSUDATIONES—INFLAMMATIONS.

[*Process Inflammatory, Diffuse or Circumscribed, Superficial or Deep-seated.*]

Predominant Lesions.

Erythema Exsudativum.	}	Erythematous.
Erythema Pernio.		
Erythema Exsudativum Multiforme.		
Erythema Nodosum.		
Pellagra, Acrodynia.	}	Erythematous, Œdematous.
Urticaria.		
Urticaria Pigmentosa.		
Œdema.		
Eczema.	}	Erythematous, Papular, Vesicular, Pustular, Squamous, or Multiform.
Impetigo.	}	Pustular.
Impetigo Herpetiformis.		
Ecthyma.		
Dermatitis Herpetiformis.	}	Vesicular, Bullous, or Pustular.
Pemphigus.		
Pompholyx.		
Herpes Simplex.		
Herpes Zoster.		
Lichen.	}	Papular.
Prurigo.		
Acne.	}	Papular, Tubercular, or Pustular, involving Sebaceous Glands or Follicles.
Sycosis.		

Psoriasis.	}	Erythemato-Squamous.		
Pityriasis Rubra Follicularis.				
Pityriasis Rubra.				
Dermatitis Exfoliativa.				
Pityriasis Rosea.	}			
Erysipelas.	}	Erythematous, Œdematous.		
Morbilli.	}	}	Erythematous, Maculo-Papular.	
Rubella.				
Scarlatina.				
Variola.	}	Eruptive Fevers.	}	Vesicular, Pustular.
Vaccinia.				
Varicella.				
Dermatitis Medicamentosa.	}	Due to Drugs, Poisons, Caloric, Traumatism, etc.	}	Varied, Multiform, Superficial or Deep-seated.
Dermatitis Venenata.				
Dermatitis Calorica.				
Dermatitis Traumatica.				
Dermatitis Neuropathica.				
Gangrena.	}	}	Varied, Multiform, Suppurative, Necrotic, Deep-seated.	
Furunculus.				
Carbunculus.				
Equinia (Glanders).				
Anthrax (Pustula Maligna).				
Tinea Trichophytina (Tinea Circinata, Tinea Tonsurans, Tinea Sycosis).	}	Due to Phyto-parasites.	}	Erythematous, Squamous, Multiform, involving Epidermis, Follicles, Hair, or Nail.
Tinea Favosa.				
Tinea Versicolor, Tinea Erythrasma, Tinea Imbricata.				
Actinomycosis, Mycetoma.				
Pediculosis.	}	Due to Zoo-parasites.	}	Varied, Multiform, Superficial or Deep-seated.
Scabies.				
Dracunculosis.				
Onychia.			}	Involving Nail.

CLASS IV.

HEMORRHAGIÆ—HEMORRHAGES.

[Process Hemorrhagic, Diffuse or Circumscribed, Superficial or Deep-seated.]

Structure chiefly involved.

Purpura.

{ Corium, Connective Tissue.

CLASS V.

HYPERTROPHIÆ—HYPERTROPHIES.

[*Process Hypertrophic, Formative, Diffuse or Circumscribed, Superficial or Deep-seated.*]

Structure chiefly involved.

Lentigo.	}	Pigment.
Chloasma.		
Nævus Pigmentosus.		
Callositas.	}	Epidermis.
Clavus.		
Ichthyosis.		
Verruca.		
Molluscum Epitheliale.		
Cornu.		
Comedo.	}	Follicles, Sebaceous Glands.
Milium.		
Cystis Sebacea.		
Keratosis Pilaris.		
Keratosis Follicularis.		
Hypertrichosis.	}	Hair.
Nævus Pilosus.		
Onychauxis	}	Nail.
Elephantiasis.	}	Corium, Connective Tissue.

CLASS VI.

ATROPHIÆ—ATROPHIES.

[*Process Atrophic, Retrogressive, Diffuse or Circumscribed, Superficial or Deep-seated.*]

Structure chiefly involved.

Albinismus.	}	Pigment.
Vitiligo.		
Atrophia Cutis Propria.	}	Corium.
Xeroderma Pigmentosum.		
Striæ et Maculæ Atrophicæ.		
Morphœa.		
Scleroderma.		
Atrophia Pilorum Propria, Trichorrhæxis.	}	Hair.
Alopecia.		
Canities.		
Onychatrophia, Leuconychia.	}	Nail.

CLASS VII.

NEOPLASMATA—NEW FORMATIONS.

[*Process Neoplastic, Benign or Malignant, Diffuse or Circumscribed, Chiefly Deep-seated.*]

<i>Structure chiefly involved.</i>			
Fibroma. Neuroma. Cicatrix. Keloid. Xanthoma.	} Corium, Connective Tissue.	} Benign.	
Myoma.			
Angioma, Nævus Vasculosus, Telangiectasis.			} Blood-vessels.
Lymphangioma.				} Lymph-vessels.
Adenoma.			} Glands.
Tuberculosis, Scrofulosis, Lupus Vulgaris. Lupus Erythematosus. Rhinoscleroma. Syphilis. Frambesia (Yaws), Verruga Peruana. Lepa. Carcinoma, Dermatitis Papillaris Maligna (Paget's disease). Sarcoma. Granuloma Fungoides.	} Corium, Connective Tissue.			} Malignant.

CLASS VIII.

ANOMALIÆ SECRETIONIS GLANDULARUM—ANOMALIES OF
SECRETION OF THE GLANDS.

[*Glands Involved Functionally.*]

A. GLANDULARUM SUDORIPARARUM—SWEAT-GLANDS.

<i>Predominant Process.</i>	
Hyperidrosis. Bromidrosis. Chromidrosis. Hæmatidrosis. Uridrosis. Anidrosis.	} Disordered Secretion without Struc- tural Change.
Sudamen. Hidrocystoma. Miliaria.	
	} Disordered Secretion with Struc- tural Change.

B. GLANDULARUM SEBACEARUM—SEBACEOUS GLANDS.

Seborrhœa.	} Increased or Altered Secretion.
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CLASS IX.

NEUROSES—NEUROSES.

[Sensory Diseases, Functional, without Primary Lesions.]

Chief Symptoms.

Hyperæsthesia. Dermatalgia.	} Increased or Painful Sensation.
Pruritus.	} Itching.
Anæsthesia.	} Decreased Sensation.

There are nine classes, as follows: I., Anæmiæ; II., Hyperæmiæ; III., Exsudationes; IV., Hæmorrhagiæ; V., Hypertrophix; VI., Atropiæ; VII., Neoplasmata; VIII., Anomaliæ Secretionis Glandularum; IX., Neuroses. The classes, it will be noted, represent mainly the expressions of pathological processes, most of which require no comment. The special involvement of anatomical structures, or the epidermis, pigment, corium, and so on, is a matter of importance both to the dermatologist and to the pathologist. The knowledge of the special seat of a disease aids materially in its treatment. The clinical portion of the classification is based on broader lines than has been heretofore attempted. It must be remembered concerning the forms of lesions that the exudative diseases especially are prone to exhibit, that in some cases considerable latitude is to be allowed. In stating the predominant lesions usually encountered in typical cases of the disease it is believed that this information may prove of aid in diagnosis. It need not be remarked that in most of the exudative diseases the forms of lesions are variable, and hence, as already stated, ample latitude must be allowed for deviations and exceptions to the so-called "predominant lesions." At the same time it is well known that many of the common diseases are very prone to manifest themselves always in the same form of lesions; thus, we may assert, without fear of contradiction, that herpes zoster is preeminently a vesicular disease, psoriasis an inflammatory squamous disease, and so on. A consideration of the classes and the matter they contain may now be taken up.

CLASS I.—ANÆMIÆ.

The anemias of the skin may be properly and satisfactorily divided into (1) those which are transient, and (2) those which are persistent. They may, moreover, be considered under the headings of (a) general, and (b) local. The most notable example of transient anemia of the skin occurs in connection with loss of blood from ex-

cessive localized or general hemorrhage, especially in those instances where the bleeding occurs suddenly. Anemia of the skin is also met with in edema. Transient anemia occurs as a result of temporary disturbed or arrested innervation, as in fear and anger; also, in connection with disturbed nerve-centers, as observed in nervous chill and shock, and in certain psychical conditions, as fainting from emotion. Persistent anemia often occurs in connection with certain diseases, as chlorosis and tuberculosis, and in these cases it is general. Localized anemia is met with where there exists an arrest of nutrition arising from defective innervation, as observed in morphœa and scleroderma, and still more strikingly in alopecia areata. Pallor of the skin occurring in the course of certain general diseases, as the febrile eruptive diseases, is indicative of a determination of the blood from the integument to other organs, and may be of importance prognostically. I have referred to these points because I do not think the anemic states of the skin in disease, whether general or local, are sufficiently recognized. I believe they may prove of considerable importance in connection with diagnosis in general, especially as concerns systemic diseases. The fact that they cause no substantive cutaneous lesions should not be a reason for ignoring the whole subject. On the contrary, I would contend that a good deal may be learned from close observation of the blood-current in the skin.

CLASS II.—HYPEREMIE.

Some nosologists are of the opinion that a class devoted to the hyperemias of the skin is superfluous. They would contend that all such affections should be relegated into the class of exudations, where they belong according to their views of pathology. But clinical experience shows that there exist certain forms of disease, especially of vasomotor nature, in which little or no exudation occurs, examples of which are met with in so-called morbid flushing and in other affections. These are very appropriately classed as *erythema hyperæmicum*, and are to be distinguished from *erythema exsudativum*. They are congestions without exudation, and of which there exist many varieties due to diverse causes, as caloric, traumatism, and poisons. To regard every instance of "erythema" as an early stage of exudation is unjust to the subject, for many of the hyperemias show no disposition to pass into the exudations. As I have endeavored to point out in Part II. of my "Treatise on Cutaneous Medicine" in discussing this topic, I think ample material exists for this class. The division into "active" and "passive" is of importance from the standpoint of both diagnosis and prognosis.

The *passive hyperemias* are of considerable import in connection with the so-called "stasis dermatoses," diseases in which the circulation, especially the venous, is interfered with, retarded, or arrested. *Livedo*, or lividity, plays a conspicuous part in affections which subsequently tend to superficial gangrene, as in chilblain, local asphyxia with gangrene, and the like. The origin of these diseases is for the most part obscure, but exposure to long-continued cold, impaired nutrition resulting from disturbed nervous system, impaired cardiac or central circulation may all be factors.

CLASS III.—EXSUDATIONES.

The exudations are essentially inflammatory, but vary in the degree of exudation, as well as in the kind. They are due to a great variety of causes, some being internal, others external. Many of them are diffused, occupying a considerable portion or even the entire surface, while others, as furuncle or carbuncle, are circumscribed. Many are superficial, involving only the papillary layer or the upper and middle strata of the corium, while others invade the entire corium and to a greater or less extent even the subcutaneous connective tissue.

Among the erythematous exudations will be found *erythema exsudativum*, as well as *erythema exsudativum multiforme*. This distinction I have made because clinical experience shows that there is need for both of these varieties of erythema. Thus, to put the matter concisely, not every erythema exsudativum is an erythema exsudativum multiforme, using that latter term to stand for a substantive disease, as originally defined by F. Hebra.

There has been a tendency of late on the part of clinicians to enlarge the field of erythema exsudativum multiforme; indeed, to such an extent that it shall include all forms of exudative erythema, irrespective of cause, not otherwise classifiable, and even hemorrhagic lesions. This movement has gone so far on the part of some observers that the name erythema exsudativum with them no longer stands for the tolerably well-defined disease so well portrayed clinically by F. Hebra. To prevent further confusion in this direction I have endeavored in my "Treatise on Cutaneous Medicine" to set forth the claims of erythema exsudativum with its principal varieties, as well as those of erythema exsudativum multiforme. As varieties of erythema exsudativum, I would mention the erythemata of variola, vaccinia, diphtheria, cholera, uremia, the erythema of septicemia, gonorrhea, and erythema scarlatinoides. These, while often being multiform, are not so in the sense of the erythema exsudativum

multiforme of F. Hebra and of the writer. The subject is one too extensive to be discussed at length here, but attention, at least, may be directed to it.

Pellagra and *acrodynia*, two well-known general diseases (foreign to this country), have been placed with the erythematous exudations, because erythema, by no means the only form of existing cutaneous manifestation, is nevertheless one of the most prominent symptoms, and one whereby the diseases may be often recognized.

Urticaria pigmentosa is not considered a variety of urticaria, because it differs in such important particulars from that disease as to entitle it to separate description. It is unfortunate that the name urticaria should have been linked with this disease, and yet one can readily understand how it came to pass that Dr. Sangster originally selected that title. While some cases resemble urticaria vulgaris in their symptomatology, others do not; in most instances, however, the disease is well-defined in its history, symptoms, and course.

The introduction of *œdema* into a classification of cutaneous diseases is an innovation; at the same time the subject is one which grows larger through investigation and study, and especially in connection with the skin. The subject I regard as of importance, especially in its bearing various neurotic affections in which the skin proper is more or less infinitely involved, as I have pointed out in my "Treatise on Cutaneous Medicine," Part II., in describing its existence in varied forms; it is a pathological condition worthy of closer study than has heretofore been accorded to it in connection with the diseases of the skin.

Concerning *impetigo*, a disease that has been the subject of considerable discussion for many years, it seems proper in the light of present knowledge to discuss it as a whole, or as a unit, and to accord to it such varieties as simplex and contagiosa. While both varieties are contagious and inoculable, one is more contagious than the other, and for this variety the established term contagiosa may be retained. Its clinical features, moreover, are generally so well defined that this manner of dealing with the subject is the more justifiable.

For the same reason that urticaria pigmentosa has been separated from urticaria, *impetigo herpetiformis* has been described as a malady distinct from impetigo. It has but little in common with impetigo vulgaris, and possesses such a distinctive symptomatology that it is entitled to special description.

On the subject of *herpes*, I would say that it seems eminently fitting that two types of herpetic disease should be insisted on,

namely, herpes simplex and herpes zoster. Both are herpes, but they differ in so many particulars that they may well be regarded as distinct affections rather than as varieties of one disease. The use of the term zoster, or zona, alone, expressive of herpes zoster, I look upon as an ill-advised and as an unnecessary abbreviation. On the other hand, the word herpes alone is inadequate to express the idea of herpes simplex. For these and other reasons it would seem proper, therefore, to retain both herpes simplex and herpes zoster, and to establish them on distinct footings.

The name *lichen* I would adopt for a certain type of inflammatory papular disease. Under this name its several varieties, according to the peculiar forms and course of lesion manifested, may be described, including "acuminatus" and "planus." I think that in the discussions that have taken place recently on the subject of the varieties of lichen, too much stress has been laid on the forms of the lesions, which are subject to considerable variation.

Simplicity and conciseness are aimed at everywhere throughout the classification. The uppermost thought has been to introduce as few names and terms as compatible with our present knowledge. Thus, it seems wisest to accept *acne* as a type of disease. The well-known *acne rosacea* is, therefore, not introduced because it is viewed as a variety of acne. Other forms of so-called acne, as *acne varioliformis* and *acne necrotica* are not admitted to position for the reason that their nature and pathology are still obscure. It is, I think, questionable if they are entitled to be regarded as forms of inflammation of the sebaceous glands. Most cases that I have observed seem to represent a process similar to but different from acne.

While appreciating the value of the work that has been done, during the last ten years, especially in New York and in Paris, in elucidating the symptomatology of the disease known in France by the name *pityriasis rubra pilaris*, I must raise a protest against the use of the adjective "pilaris" and suggest that the term "follicularis" be substituted. The latter more accurately describes the condition. The lesions tend to occupy not only the hair-follicles but the glandular ducts generally. My own observations with the disease have convinced me that the process by no means confines itself to the hair-follicles, as the French name would imply. In this respect it differs from keratosis pilaris.

It may be questioned by some dermatologists whether it is proper or advisable to distinguish between *dermatitis exfoliativa* and *pityriasis rubra*. There has been a tendency on the part of many observers to regard them as one and the same disease. While they

possess some points in common, a study of the literature will, I think, show that they differ in some important particulars. In the first place the matter of definition naturally arises. I am in favor of retaining and adhering to that put forth by Hebra many years ago. It does not seem to me that typical cases of dermatitis exfoliativa can be properly classified under Hebra's definition of pityriasis rubra. The exfoliation in dermatitis exfoliativa is different from that usually met with in pityriasis rubra, being more exfoliative and less squamous. In the latter disease, moreover, the course is usually distinctly chronic, while that of dermatitis exfoliativa is generally acute. In pityriasis rubra the subject is apt to become debilitated, marasmic, or arthritic, with chronic trophic changes of the hair and nails.

The *eruptive fevers* naturally belong with the other exudations. They possess without question full right to consideration in a classification of the diseases of the skin, as much so as lepra or syphilis. The cutaneous lesions which characterize them are an important part of their symptomatology. They are entitled to exhaustive investigation from every point of view. To exclude them from works on cutaneous medicine on the ground that they are general and not cutaneous diseases is an injustice not only to them but to other diseases involving the integument.

To those nosologists who would restrict cutaneous medicine in its scope to such diseases as eczema, psoriasis, etc., the question may with propriety be propounded, what constitutes a disease of the skin? Who is able in the light of present knowledge to answer this question to the satisfaction of the clinician and the pathologist? I do not hesitate to state that the more one reflects on this problem the more difficult the answer becomes. The subject covers a wide range. It permits of no narrow distinctions. The integument must be viewed as a part of the whole organization. All cutaneous lesions that occur in the course of any morbid process whatsoever invading the whole or any part of the economy, or only the skin, must be regarded as belonging to the province of cutaneous medicine. The epoch in which so-called "skin diseases" were regarded as belonging strictly to the skin, and to that organ only, is rapidly passing away with the increased knowledge of the day. We no longer regard "skin diseases" in the same light as did our forefathers in medicine. The various diseases affecting the skin, with few exceptions, are neither more nor less than a branch of general medicine. To treat them in any other light betrays ignorance.

Erysipelas finds its place after the eruptive fevers as a well-de-

finer expression of a disease, and with it may be considered such affections as *erysipeloid*, *lymphangitis* due to varied causes, including that caused by fish and crab local infection, *phlegmona*, and *pseudo-phlegmona*.

The caption *dermatitis traumatica* is one under which may be discussed a variety of traumatic lesions of an inflammatory nature. Here may be considered "dermatitis factitia" and other allied forms in which traumatism plays a part, including certain *inflammatory ulcers*. Under *dermatitis calorica*, the several peculiar summer and winter forms of inflammation may also be properly considered, such as *dermatitis vesiculosa æstivalis* (or *hydroa æstivale*), whose nature is but little understood, beyond that sunlight is a potent factor in its production.

Under *dermatitis venenata* may be grouped varied forms of inflammation due to contact with poisonous plants and mineral poisons, poisoned wounds, cadaveric inflammations, snake-, scorpion-, and spider-wounds, and the bites or stings of bees, wasps, flies, and other noxious or poisonous insects.

There exists a group of diseases related in their general pathology, characterized by more or less distinct inflammatory symptoms, whose noteworthy peculiarity consists in the fact that they are intimately connected with or due to disturbed nerve action, central or peripheral, more often the former, and that, therefore, they are undoubtedly neuropathic. It will be observed, moreover, that they do not fall into the category of certain other well-known neurotic diseases, as, for example, herpes zoster and pemphigus.

These several peculiar and varied forms of inflammatory disease I have grouped together under the general caption of *dermatitis neuropathica*, a term sufficiently expressive of their general pathology and symptomatology. The group includes such diseases as *neurotic vesicles*, *blebs*, and *excoriations* (unclassifiable elsewhere); certain peculiar and rare forms of inflammation of the skin, of hysterical origin, such as S. Weir Mitchell's case of *hysterical crust*, *dermatitis neurotraumatica*, *atypical herpetic diseases*, *lioderma neuritica*, *erythromelalgia*, *asphyxia localis*, *simple pressure necrosis*, *bed-sores*, *ulcus perforans*, and the like. Some of these affections manifest, during their course, more or less distinctly defined trophic disturbances. The lesions and other clinical symptoms are often pronounced, and most of them tend to produce a chronic, obstinate course. Their intimate pathology is generally obscure. The central nervous system is probably more frequently at fault than is generally conceded

to be the case. Heretofore these diseases have had no definite place assigned to them in classification.

The diseases of the skin due to plant-parasites, or fungi, are few in number. They may be very conveniently and properly grouped together and designated as due to phyto-parasites, which term is better than the old "vegetable-parasites." The term "tinea" means a moth, hence the word "moth-eaten," which is suggested by the peculiar nibbled appearance of the scalp in common ringworm. In order to make this group uniform in nomenclature I have bestowed upon all of the diseases in which the epidermis is affected the generic prefix *tinea*. The use of this word, therefore, implies in itself a diseased condition of the skin due to a fungus, or plant-parasite. Uniformity in nomenclature is thus established, and there never can be any doubt in the mind of the student as to the nature of a disease so named.

In the classification of F. Hebra, and in that of the writer, as given in his earlier works, an entire class was devoted to the diseases due to parasites. With but few exceptions these diseases are distinctly exudative. The most notable exception is *tinea versicolor*, which is a squamous, "pityriasic," or finely desquamating, disease of the epidermis. In temperate climates it is seldom accompanied by exudation into the papillary layer, but in warm and hot climates it may be markedly congestive or exudative. As the disease is one which is very difficult to classify in a scheme based upon pathology or histopathology, it seems advisable not to separate it from the other squamous diseases due to fungi. It might, with propriety, also be placed with the hypertrophies, either of pigment (thus, with chloasma) or of epidermis (with ichthyosis). It finds, however, a more natural place with the other fungous diseases, where I have placed it.

The introduction of *actinomycosis* into a classification of cutaneous diseases seems warranted by recent observations, some of which go to show that the skin may be primarily as well as secondarily involved by the ray fungus. The latest investigators in Europe and in the United States all incline to the view that *mycetoma* (the so-called *Fungus Foot of Madura*) is a different disease from actinomycosis, and hence, I have admitted it to a place in the classification.

The zoo-parasitic, or animal-parasite, diseases are also accompanied by a variable degree of inflammation, primary or secondary, and may be very properly grouped together. Thus, in addition to the two types of zoo-parasitic diseases, (a) *scabies* and (b) *pediculosis* (the parasite of the former having its seat *in* the skin, the latter *on* the surface of the skin), there are other diseases also worthy of

consideration, as inflammation due to the harvest-mite, to fleas, to the bedbug, to bot-flies, to ticks, and to filariæ, as the guinea-worm, and possibly other filariæ. The well-known disease due to the presence of the guinea-worm, or *dracunculus*, has heretofore been designated "guinea-worm disease," "filaria *Medinensis* disease," and dracontiasis. The latter name is ancient, but has never been popular with authors. Inasmuch as the term *dracunculus* is universally known and used for the parasite, I propose to call the disease *dracunculosis*.

HEMORRHAGIÆ.

The hemorrhages of the skin constitute a tolerably well-defined class. The lesions may be diffused or circumscribed, superficial or deep-seated, their seat being extremely variable. The type of cutaneous hemorrhage is *purpura*, of which there are several fairly well-defined varieties. But there occur other forms of cutaneous hemorrhage which are also worthy of consideration, such as the lesions of typhus fever, cerebro-spinal fever, varicose ulcers, and neuropathic hemorrhages, as are noted in hematidrosis and in bleeding stigmata.

HYPERTROPHIÆ.

There exist a number of diseases, due to varied causes, whose most striking pathological characteristic is that they consist chiefly or largely of an augmentation of their normal structure. Pigment, epidermis, follicles, hair, nail, or corium, and connective tissue may be involved, singly or in combination. The pathological process thus is hypertrophy, and usually progressive. It may be diffuse or circumscribed, superficial or deep-seated, according to the structure involved. Diseases caused by hypertrophy of the tissues do not tend to take on an inflammatory action, although there are some exceptions to this statement. Following the description of the typical pigment hypertrophies, *lentigo* and *chloasma*, certain other allied affections may be referred to, as *argyria*, and the like, due to foreign matter in the skin. The epidermic hypertrophies, of which, as types, we may accept *callositas*, *clavus*, and *ichthyosis*, are common, and are of considerable importance, especially as concerns the comfort of the individual affected. They are due to increased and abnormal proliferation of the epidermis, with invasion not infrequently of the papillary layer. At times inflammation in the corium occurs, as in *keratoderma erythematosum* and in *keratosis follicularis*. In these cases the line of demarcation between hypertrophy and inflammation may prove more or less arbitrary, but there is to be said in favor of placing such diseases with the hypertrophies that the epi-

thelial proliferation is the predominant process, and, moreover, that it tends to be progressive. These affections are benign throughout their course, and in this respect differ from the so-called cancers, in which the epithelium takes on an entirely different action. Both forms press down upon and into the corium, but not to the same extent or in the same manner. In one case the cells, as a rule, undergo but little change in form, with some notable exceptions; in the other, the forms are not only more markedly adherent, but are more active and prolific.

Among the hypertrophies of the follicles and the sebaceous glands will be found the term *cystis sebacea*, which I have to suggest may properly be employed in place of the English term "sebaceous cyst," which has for so many years found its place side by side in classifications with Latin terms. While large, deep-seated sebaceous cysts and atheromata (the latter not sebaceous in origin) may not in some cases be properly regarded as belonging to diseases of the skin, there occur, nevertheless, lesions of this nature, which have their seat in the corium, often forcing themselves toward the surface rather than downward, thus constituting superficial cutaneous projections and often even tumor formations.

With hypertrophy of the corium and connective tissue, of which *elephantiasis*, due to varied causes (filaria, probably, being only one kind), may be grouped certain other enlarged conditions of the integument, such as *rhiuophyma*, *acromegalia*, *myxedema*; also, *sclerema neonatorum*, a disease possessing some features in common with elephantiasis, and differing from *scleroderma adultorum*. The changes in most of the diseases mentioned are complex rather than simple.

ATROPHIÆ.

The atrophic diseases are characterized by retrogression, which generally occurs in the form of shrinkage, wasting, or degeneration. The process is the opposite of hypertrophy, in which an increase or exuberance of tissue prevails. As in the case of the hypertrophies, the lesions may be diffuse or circumscribed, superficial or deep-seated, according to the structure involved. In *vutiligo*, which I place in this class because the usual primary and prevailing process is a loss of pigment, there is in almost all cases also a distinct increase in the amount of pigment surrounding the whitish patch. The process is, therefore, a compound one, consisting of both atrophy and hypertrophy occurring in combination. In some cases we find hypertrophy predominates over the atrophy. There is no reason for questioning the appropriateness of placing that rare affec-

tion known as *atrophia cutis propria* here, but the disease originally described by Kaposi as *xeroderma pigmentosum*, generally a family disease, and beginning early in life, may well be challenged as being entitled to a place in this class. It begins with pigment hypertrophy, vascular new formations, these lesions being followed by atrophy and scarring, and ultimately by new formations of a cancerous nature or by undoubted cancer itself.

There has been considerable discussion among nosologists during the past quarter century as to the relation of morphœa to scleroderma. The almost universal opinion is that they are closely related. Many observers, especially in England, regard morphœa as a circumscribed form of scleroderma. Other observers, however, the writer among the number, do not accept this disposition of the question. I am of the opinion that while there are cases of morphœa which show a distinct relation to scleroderma, and vice versa, there are other cases in which no marked relation exists.

In the latter group of cases of morphœa the clinical symptoms are often altogether different from those of scleroderma. Such, at least, has been the writer's experience, and he, therefore, deems it best to describe them as distinct diseases. Both morphœa and scleroderma tend to atrophic, retrogressive changes, with more or less condensation, degeneration, shrinkage, and wasting, accompanied with, in most cases, increased and altered pigmentation. The early stage of morphœa may begin as an elevated or as a depressed spot, yellowish, pinkish, reddish, or brownish in color, with more or less infiltration, or with increased and altered vascularity, which in a variable time causes the skin to become atrophic or to pass into a state of soft or firm fatty degeneration. In scleroderma the process manifests itself with diffuse stiffness, firmness, and condensation of the skin, and with other peculiarities that need not be enlarged upon here. Stiffness, firmness, or hardness, however, are characteristic symptoms. While the first stages may, in some cases, indicate an increase in the normal constituents of the skin, and hence may be looked upon as hypertrophy, this is by no means the course in every instance. The main point, however, to be remembered is that scleroderma tends to retrogressive changes, and that it is essentially a shrinking, wasting disease, not only of the skin, but, also, frequently of the subcutaneous tissues including the muscular system. Hence, for these reasons, I think it should be grouped with the atrophies, and with morphœa and *striz et maculæ atrophicæ*, rather than with the hypertrophies, as is usually done by authors.

The *striz et maculæ atrophicæ*, so well-known to clinicians, are

in my opinion intimately related to morphœa; so, also, is *hemiatrophia facialis*, as I pointed out many years ago. Many cases of atrophic macules and striæ begin with the same bluish, purplish, or reddish vascular changes that often accompany the first stage of morphœa, including puffiness and elevation of the skin, these symptoms, however, being sooner or later followed by more or less distinct degeneration or atrophic lesions in the form of irregularly rounded or elongate, linear, slightly grooved, scar-like depressions in the skin.

Passing on to atrophies of the hairy system, *alopecia areata* may first be referred to. This is a neurotic disturbance, and is characterized by signs of retrogression and shrinkage, involving usually the scalp. It is due to an arrest of nutrition of the hairy system. Hence, it appropriately finds its position in a classification among the atrophies. Forms of baldness due to fungi, sometimes closely resembling alopecia areata, find no place here. They are to be grouped with the tineæ.

Certain other diseases of the hair, such as *fragilitas crinium*, splitting of the hair, *trichorrhæxis nodosa*, and *plica*, are also atrophic. Under *canities* I would also consider *pili annulati*, or *ringed hairs*, and allied conditions in which the pigmentation is deficient in places or wholly.

NEOPLASMATA.

This class, known also as *new formations* and *new growths* contains many important diseases. The process is more or less distinctly neoplastic, having its seat mainly in the deeper structures, especially in the corium, in the form of diffuse or circumscribed infiltrations or deposits, which clinically pursue a tolerably constant, benign or malignant course. The various strata and structures of the integument are all more or less involved, but, as stated, the diseases evince a preference for the corium. I will not attempt here to enter upon a discussion of what constitutes a neoplasm, nor to discuss wherein many neoplasmata, as, for example, lupus vulgaris, lepra, and syphilis differ from the exudations. I may go so far into the discussion, however, as to say that some diseases usually classed among the neoplasmata might with equal propriety be classed with the exudations. Thus, *lupus erythematosus* is characterized by many of the usual signs of inflammation, as observed under the microscope. It might, therefore, be regarded as an exudation; at the same time, it possesses features so peculiar and different from those of the diseases we are accustomed to look upon as inflammatory, that it may be allowed to remain for the present in the place it has occupied for half a century and longer, among the neoplasmata.

According to the views of some pathologists *lupus vulgaris*, *lepra*, and *syphilis* might also be placed in the class of exudations, but the fact that they are prone to produce distinct neoplastic infiltrations and deposits in the skin, often firm and circumscribed, and different from those met with in non-specific inflammatory diseases, entitles them to separate classification. Their course, moreover, is persistently chronic, as is the case with the neoplasms in general, a point wherein they differ from most of the exudative diseases.

The work of the past decade has done much to enlighten us as to *tuberculosis* of the skin, and its relation to *lupus vulgaris* and *scrofulosis*, but there are many points still unsettled in connection with the pathology of these diseases, so that in order that we may discuss their clinical features understandingly, and thus avoid confusion, it is wisest to hold fast, for the present, to the old and universally recognized nomenclature.

The two diseases *frambæsia* (or *yaws*) and *verruca Peruana*, peculiar to the countries in which they are usually met with, are difficult to classify. The lesions in both possess the general characters of new formations, but the probable nature and the history of the diseases would indicate that they rather belong to the group of eruptive fevers. They might be placed there with propriety. The fact, however, that *frambæsia* has long been confounded with *syphilis*, even by distinguished authors, is indicative that it possesses much in common with new formations. Hence it may, for the present, be grouped here. *Verruca Peruana*, in its general character, nature, and history, is not unlike *frambæsia*, but it is unquestionably a distinct disease, and is confined, geographically, to a small area in the valleys of the Andes Mountains in Peru, in this respect, as well as in others, differing from *frambæsia*.

The term *granuloma fungoides* is, I think, for many reasons much preferable to the common, but misleading, name, *mycosis fungoides*. As far as our knowledge extends, it is not really a mycotic disease, and hence the word "mycosis" should be abandoned for the non-committal term "granuloma." The fact that the disease in its course is prone to take on exuberant, mushroom-like formations is not alone of sufficient import to warrant the use of "mycosis" to designate it, which, as already stated, is misleading as to its pathology.

ANOMALIÆ SECRETIONIS GLANDULARUM.

In this class are grouped the anomalies or disorders of the sebaceous and sudoriparous glands. They are functional disorders. The sweat-gland diseases, characterized by deranged secretions

without structural change, constitute a well-defined group, hyperidrosis being the accepted type. In sudamen, hidrocystoma, and miliaria we have diseases in which marked structural changes occur in the ducts or in the glands.

Of the disorders of the sebaceous glands seborrhea is the most important. It is, in my opinion, a disease subject to much variation in its symptomatology. While it is frequently functional and non-inflammatory, it often becomes involved with considerable exudation, giving rise to morbid lesions which are difficult to classify. We speak of these as erythematous or inflammatory seborrhea, as "seborrheic dermatitis," or as seborrheic eczema, and the like, according to the form or degree of exudation that may exist. I believe that the functional disorders of the sebaceous glands, characterized by epithelial proliferation and increased secretion, are exceedingly prone to go a step further and become hyperemic or inflammatory. Thus, seborrhea may be a functional disorder without or with hyperemia, and also a distinctly inflammatory disease, as seen especially upon the scalp, face, trunk, and extremities. I think our definition of this disease, heretofore, has, in the past, been much too narrow. While typical seborrhea is met with in the oily form chiefly on the face, and in the crusted variety in the same region, other forms of the disease characterized by disturbed rather than profuse secretion, with more or less exudation, also occur in these regions, as well as on the trunk and limbs.

In concluding my remarks upon the important features of the classification presented, it may be added that I have been particular in avoiding reference to minor matters. My chief purpose has been to direct attention to the ideas underlying the skeleton or framework of the classification.

It has been my aim to classify only well-known clinical forms of diseases—what may be termed types of morbid processes—with the view in mind of preserving the tables as clean and as free from doubtful diseases as possible. Varieties or rare forms of disease introduced into classifications make the latter unduly large, cumbersome, or confusing. The classification may in this way be elaborated to such a degree that its essential features are obscured by the accessories. Too much elaboration and refinement in a classification should not, in my opinion, be attempted, lest its usefulness be impaired. If a general plan of classifying the diseases can be agreed upon by dermatologists, the elaboration of the whole may be perfected with increased knowledge of the individual diseases concerned.

SEMINAL VESICULITIS AND PROSTATITIS (POST-GON-
ORRHEAL); A STUDY OF THREE CASES.^{1 2.}

GEORGE KNOWLES SWINBURNE, M.D.,
Surgeon to Good Samaritan Dispensary.

THE subject which I present this evening is not new. Many able articles have appeared in current literature, more often, however, in the special journals, particularly in Germany.

Dr. Eugene Fuller, in his article on seminal vesiculitis, and his book on sexual disorders of the male, has done more than any one else in this country to bring this subject before the profession.

White and Martin (1897) in their work on genito-urinary and venereal diseases, give it some attention, but even there it hardly occupies the position it deserves.

Columbini,³ as a result of examination of 400 cases of acute and chronic gonorrhea, finds that fully thirty-five per cent. of the cases suffer from prostatitis and seminal vesiculitis.

Von Scehlen, Posner, and Feleki in Germany and Austria have made similar discoveries. Finger, in the new edition of his work on blenorrhea (1897), quotes most of these authors, agrees with their findings, and says that the treatment of this condition is not yet on a settled basis.

Judging by the cases of chronic urethritis, which in the past three years have come under my care, I should say that the profession at large had not yet recognized the important rôle which the prostate and seminal vesicles play in this affection, nor have they familiarized themselves even with the methods of diagnosis which would enable them to recognize diseases of these organs. They still confine themselves largely to the passing of sounds and giving the patient an antiseptic or astringent wash to inject into the anterior urethra himself, and seem willing to continue this system of treatment as long as the patient will come!

I shall not make a detailed description of the symptoms of this trouble which has been very accurately done. In Dr. Fuller's book these are set down in minute detail. I myself, however, have never quite understood why prostatitis is completely ignored by Dr. Fuller, for in my own experience, clinically, seminal vesiculitis (due

¹ Read before the Genito-Urinary Section of the Academy of Medicine, February 8, 1897.

² Discussion will be published.

³ *Giorn. Ital. della Mal. Ven. e delle Pelle*, No. 5, 1896.

to gonorrhea) without involvement of the prostate is comparatively rare. On the other hand, most of the authors who have written upon this subject seem to regard the condition of the prostate as over-shadowing that of the seminal vesicles and, therefore, seem to be quite as far out of the way.

Before going on to the study of my cases, I will simply say that I do not think any case of chronic gonorrhea, nor any case in which the posterior urethra has been invaded, should be dismissed until the prostate and seminal vesicles have been thoroughly examined. In the chronic cases I believe that in fully thirty-five per cent., these organs will be found to be involved, and in those acute cases which run a prolonged course, and in those which have been treated in the ordinary routine way, it will also be found that a certain proportion have a condition left behind which may lead to future trouble.

CASE I.—A. G. came to me in December, 1892, with a chronic urethral discharge containing gonococci. He had had the disease for two years and was not able to get rid of it. He was engaged to be married and was anxious to get well. I began a systematic intravesical irrigation with hot bichlorid (1-20,000) solution, and within a week his discharge had ceased. I then irrigated every other day for another week, and as the urine was perfectly clear, told him to return in a week. When he returned, however, his discharge was about as marked as on his first appearance. I examined his prostate, which was perfectly normal in size and feel, but the trick of massage of the prostate and examination of the seminal vesicles I did not then know. Irrigation was again instituted every other day, which served to stop the discharge, but if treatment ceased the discharge would return. Examination of the urethra with the Otis urethrometer showed a very slight narrowing to 30 F. at $2\frac{1}{2}$ inches in a urethra, which was 34 in the rest of its extent and at the meatus 28, certainly showing a remarkably good condition considering the length of time he had had this discharge. As a routine treatment, because I did not know what else to do, I combined the passage of sounds with the irrigation, sometimes changing my solutions to hot boracic acid, permanganate, and nitrate of silver. As his condition remained unchanged, I then tried instillations into the deep urethra with the Ulzmann syringe, and examined and treated the urethra repeatedly with the endoscope. I think I succeeded in making his condition worse. Once I set up a cystitis by the passage of sounds through the deep urethra; this was quickly subdued by bladder irrigations. During the summer of 1893, treatment was interrupted.

When he returned to me in the fall he was in much the same condition as when I first saw him, and as irrigation seemed to do the most good and relieved the symptoms, this was continued. About this time he failed in business, broke off his engagement, and tried to get a position until business should be better. I invited him to come to me as often as he chose, for I felt that we must find something that would cure him.

He asked if having his "stricture" cut would give him any relief and was anxious to try it. This was unchanged and so evidently a physiological narrowing, that it did not seem to play any part in the process. Still in the hope that it might give relief, I cut the meatus and stricture to 34, allowing the meatus to narrow down to 30; this was not followed by any relief, but it did no harm.

During the winter he came with surprising regularity, until I began to wish he would tire of me. At the same time I felt that if I could relieve his condition it would be a valuable lesson. I repeatedly examined his prostate, which seemed always to be normal. There was one set of symptoms of which he complained and for which I treated him without success, and that was chronic constipation, coated tongue, and meager appetite.

This state of affairs continued until the following fall, until I ran across Dr. Fuller's article, "Chronic Urethral Discharges Dependent upon Seminal Vesiculitis" (*JOURNAL OF CUTANEOUS AND GENITO-URINARY DISEASES*, September, 1894), and was much impressed by it. I sent for my patient and lost no time in examining for the seminal vesicles, which I was readily able to make out, lying above the prostate. In his case they felt like two filled leeches. I was readily able to express nearly half an ounce of purulent material, which on microscopical examination was found to consist of pus-cells, mucus, and dead spermatozoa. By staining I found micro-organisms; among them were diplococci, which at the time I judged to be gonococci.

I then began a sort of massage of the seminal vesicles, at first twice a week, then as improvement began the interval was lengthened to once a week, then once in two weeks, then once a month. This treatment lasted six months. At the end of three weeks the urethral discharge ceased and did not again return. Following up the stripings with study by the microscope, the amount of pus decreased until only a few cells could be seen in the field. The spermatozoa, which in the beginning were dead, and possessed no movement, later began to possess slight movement, and finally these movements became very lively. The mucus at first thick and large in amount,

changed in character until the urine after stripping showed an opalescent cloud.

The constipation and coated tongue cleared up without other treatment, and the urine was absolutely clear except for a large mucous shred which always remained.

Treatment ceased in March, 1895; in July he returned for examination. At this time his condition was the same as when I dismissed him. In January, 1896, he came again to tell me that he had renewed his engagement and was soon to be married. He had no symptoms of any kind. His condition was the same as at the last examination. A year later he came to ask me to attend his wife in confinement, but I referred him to another physician. Since then I have kept track of him. A boy was born, the mother had no trouble, and up to the present has remained well and strong, and my patient has had no return of his trouble. It seemed to me to be a case of seminal vesiculitis without any involvement of the prostate, which always seemed to be normal in size and consistency.

CASE II.—H. D. J., thirty-one years old, came to me in July, 1895, with a profuse purulent urethral discharge which he had had for three weeks. Had his first attack of gonorrhea twelve years before. Thinks he was never free from it since; has been married six years. One child born, which died very young. His wife had been under a physician's care for pus-tubes. No operation performed. Is now (1895) having fairly good health. During previous winter patient was treated for urethral stricture by means of dilatation; discharged as cured, and remained well until three weeks ago when his discharge broke out again. Had had no promiscuous intercourse. The discharge, which was profuse, looked exactly like an acute infection of gonorrhea, but the examination of several slides stained by methylene blue showed only sterile pus (no cultures were made, however). I irrigated with 1-4000 permanganate, and as discharge was sterile gave him a bismuth injection to use himself once or twice a day, but directed him to come the following day.

I did not see him again until December, when he presented himself with a condition exactly similar to that I had seen in July. He had not returned before because the bismuth injections would stop the discharge in a short time and with it he could keep himself perfectly dry. He had now come to see if something could be done to relieve him of the necessity of continually using the injection. His discharge was profuse, but repeated examinations again showed no micro-organisms of any kind. I advised irrigation for a week as a beginning. At the end of the week there was not a sign. He was

ordered to return again in forty-eight hours, which he did, with his discharge as before, profuse and purulent. Examination then of the prostate and seminal vesicles revealed a peculiar condition. The prostate was so much enlarged and bulged so into the rectum, that it was with difficulty that I could reach its upper border. I could not in his condition reach the seminal vesicles. The prostate had a peculiar doughy feel which was of an edematous character and seemed to be periprostatic. There was considerable tenderness on pressure. By massage a large amount of material, purulent in character, was expressed, and came away on urination. Under the microscope it was found to be composed of pus and mucus; no spermatozoa were found. On staining there were numerous micro-organisms found, but none which could be identified as gonococci. He said he had suffered for a long time from constipation.

There was a bad family history of tuberculosis. His mother had died of it about his age, and so had one brother. I feared that the peculiar condition might be due to tuberculosis engrafted upon his late gonorrheal trouble. Bacilli, however, were not found in the material obtained; and I resolved to try active measures. I told him to pay no attention to the urethral discharge, but to come twice a week for massage of his prostate and once or twice a day to use a hot rectal douche, using a dram of salt to one quart of hot water. In three weeks the prostate was less than two-thirds its former size. The discharge had ceased completely, and the patient was feeling better than for a long time, and volunteered the statement that this was the first time in twelve years that he awoke in the morning without his old friend, the "morning drop."

I was able then to reach the seminal vesicles. I could make out no enlargement, but there was some perivesicular thickening at the base and they were included in the massage. Following the treatment with the microscope, I noted the following facts as in my previous case. The first few times there were no spermatozoa, then there were a few dead ones to be found, then they increased in number but were still dead, then they began to show movement, and before treatment ceased they showed marked liveliness.

Treatment lasted about twelve weeks, when the patient was obliged to go away on business for two months. At that time the prostate was half its first measurement, firm in consistence, and had lost its sensitiveness, and patient remarked that his sexual desire, which had been practically nil, had returned.

I met him on the street the following May; he said he had been in excellent health, and that he was all right, had had no discharge,

but promised to come and see me. This he did not do until January, 1896, nearly a year after his course of treatment, when I found him with a perfectly normal prostate. There has never been any return of his trouble. I have again seen him in the past month (December, 1897), two years now, and still find him in perfect condition. His urine is perfectly clear, and he finds himself normal in every respect.

CASE III.—In November, 1890, I saw E. M., twenty-one years old. He had had gonorrhea for two years; had an urethral discharge, which was quickly subdued, but continued to have "tripperfäden" in the urine. He had been treated by sounds and by injections into the anterior urethra. Examination of the urethra with the Otis urethrometer: at bulb, 36; at 3 inches, 24; at $1\frac{1}{2}$ inch, 26; meatus, 28. Advised internal urethrotomy, advice which at the present I should postpone. This was performed in February, 1891. On the second night he had rather a severe hemorrhage, which began during sleep. He recovered without further accident. However, he was distinctly anemic, and was treated particularly for this. The discharge did not return, and he received no other treatment. The following March he came to me and said he thought he was losing his sexual powers; that he had begun to notice during the previous summer that erections became weaker and occurred at longer intervals; otherwise he had no trouble. I then noticed a slight varicocele on the left side, for which I advised a suspensory, but spoke of the possibility of operation. As a matter of fact, I was then inclined to believe, and I think it was in his mind also, that his impotence came from the urethrotomy. (I will say here that I was later confirmed in this opinion by a conversation I had a year later with the late Dr. Palmer of Louisville, Ky., who related three or four cases where impotence had come on in the course of six or eight months after internal urethrotomy, where too extensive an operation had been done.)

At this point I lost sight of my patient, who went South for a year. In October, 1893, at his request, I operated upon his varicocele by the open method, ligating and excising about two inches of the veins and tying the ends of the two ligatures together, closing the gap between the two cut ends. There was no improvement in his condition following this.

In December, 1895, he returned from a trip to Europe, and I then examined his prostate and seminal vesicles for the first time, and found the prostate enlarged, but not tender; the vesicles were thickened. I tried to empty each vesicle separately, and

from each I obtained a very few dead spermatozoa and a very few pus-cells; no mucus. During that winter I performed massage at regular intervals. The spermatozoa became increased in number and began to show movement, and he began to have erections at comparatively regular intervals for the first time since the latter part of 1891. He improved to such an extent that he tried his powers unknown to me and came back with an attack of gonorrhea, which was quickly cured by permanganate irrigations.

The following winter (1896-7) he again returned for another course of massage, as he felt that he was again losing ground. Improvement was reestablished by another course of massage.

His improvement, though marked, is not entirely satisfactory, as he has no desire for sexual intercourse; still he has complete power to perform the act satisfactorily. At the same time he has a certain amount of mental depression and trepidation at the thought of marriage, not feeling sure of himself.

I have selected these three cases not because they are the only ones in which I have seen marked improvement by this method of treatment after all other methods have failed, but because they were among the first which I have had, and because they showed such a striking contrast as compared with their former condition, and made a strong impression upon me as to the value of the treatment.

A few problems have suggested themselves to me, especially as to how long spermatozoa expressed from normal organs can live, obtained as they are in the patient's urine, in which they naturally cannot live long. I have in every case examined found this to be a variable quantity; the longest that I recall is in the case of another patient treated for this same trouble who had previously had epididymitis, once on one side and twice on the other, apparently without damage to the ducts between the testes and the vesicles. The first specimens from this patient contained only dead spermatozoa, but later they showed the liveliest power of movement, and in his case, even after the expressed material had stood over two hours in the urine, the movements were as lively as when first obtained.

As an illustration of how little attention is paid by most men to this condition, I am now treating a patient thirty years old, who has suffered from this discharge since his first gonorrhea, which he had when sixteen. Of course, he has had repeated reinfection, but not in the last four years. Four years ago he was cut for stricture, but no improvement followed. He has since been in the hands of several men, all of whom pursued the same treatment. Bichlorid or other astringent injections into the anterior urethra, which he used

himself, and sounds at regular intervals by the physician. He came to me about six weeks ago. He had a slight purulent discharge containing gonococci. He could keep the discharge down by anterior injections, but it returned when he stopped. After stopping the discharge I found the anterior urethra normal and prostate and seminal vesicles both involved. By massage twice a week he feels better than he has in years. Discharge has ceased. His first glass of urine is clear with the exception of very few transparent floating shreds. The second glass after massage contains pus, spermatozoa, and mucus.

There is almost always some difficulty at the beginning of treatment until the patient is used to it, and the utmost gentleness is necessary at all times, or he may easily come to fear treatment and remain away.

As this is a clinical study of certain cases only, I have made no attempt to go into the classification of the different forms of the disease, but I have drawn the following conclusions:

1. That we find a condition of the prostate and seminal vesicles in patients who have never had gonorrhea which seems to be of a catarrhal nature, which may or may not give rise to symptoms. These symptoms, if present, are apt to be neurasthenic in character; they are benefited by local massage.

2. In chronic urethritis and at the end of prolonged urethritis, or where the posterior urethra has become invaded, the seminal vesicles and prostate should always be examined.

3. Where epididymitis has occurred, seminal vesiculitis is very apt to exist also. This, however, may clear up spontaneously.

4. Tubercular processes should, if possible, be excluded, for massage is apt to render their condition worse.

5. Where live spermatozoa are found by stripping after the urine has stood some time, it is a good sign that the mucous membrane of the seminal vesicles secretes the proper fluid for preserving the life of the spermatozoa.

6. Stripping the seminal vesicles is a good method to try as a test for sterility, as a test to see whether the ducts between the testis and seminal vesicle of corresponding side are patent. It may, however, fail.

7. It is as necessary to train the finger in making examination for this condition as in making a vaginal examination.

8. Sometimes at the beginning of treatment nothing, or but little material will be expressed. If the treatment is continued, more and more material will be expressed.

ON DIFFUSE SCLERODERMA; WITH SPECIAL REFERENCE TO DIAGNOSIS, AND TO THE USE OF THE THYROID-GLAND EXTRACT.

By WILLIAM OSLER, M.D.,

Professor of Medicine in Johns Hopkins University, and Physician-in-Chief to the Johns Hopkins Hospital.

(Continued from page 67.)

IV. SCLERODERMA AND ADDISON'S DISEASE.

Increase in the pigment of the skin is a very striking feature in scleroderma. It was present in a marked degree in Case VIII. It occurred in 144 of the 508 cases collected by Lewin and Heller. As a rule, slight in degree, and not widespread, occasionally when deep and general it raises the suggestion of Addison's disease. Lewin and Heller speak of at least four cases in which the diffuse scleroderma was regarded as a complication of Addison's disease. As one of the cases in my series presented an extraordinary grade of pigmentation, and as I have looked upon the increased pigmentation as only an exaggeration of a not uncommon trophic change, it may be well to see in the other cases how far the diagnosis of Addison's disease was justified. Fereol's case (No. 119 in Lewin and Heller's series), a man aged forty-three, presented extensive scleroderma, brown color of skin on shoulders, trunk, and face. No mention is made of special cardiac weakness or gastric symptoms. I see no reason whatever to regard this as a case of Addison's disease, and Fereol himself thought it scleroderma with vitiligo. Rossbach's case (No. 8) was in a woman aged sixty-two, with advanced diffuse scleroderma; the skin of face, neck, and hands gradually became dark; the pigmentation extended. The patient died anasaralous. There is nothing in the abstract, as given by Lewin and Heller, or in the original, to suggest Addison's disease, and the only note on the *post-mortem* is "extreme anemia of the internal organs; hypertrophy of the liver."

Willrich's patient, aged sixty-two (No. 359, Lewin and Heller), had scleroderma of the right hand and arm, with pigmentation of the back of the hand and forearm, face, and neck; later, sclerosis of the thighs; great anemia. *Post-mortem*, no changes were found in the adrenals or in the solar plexus. Here, too, there is nothing whatever to suggest Addison's disease other than the pigmentation. Another case, Leloir's, is said to have *suggested* Addison's disease. In none of these cases was the pigmentation associated with disease of the

suprarenal capsules. A more likely case is reported by Schultz,¹ aged nineteen, with sclerosis of the arms and legs, and much muscular atrophy, pigmentation of the face and neck. The patient became extremely feeble, had abscesses and bed-sores, and died somewhat suddenly within four months of the onset of the illness. The right suprarenal was normal; the left was moderately increased in size, adherent to adjacent parts, and presented a few small grayish nodules. The nature of the change in this capsule is not very clear; the cells were swollen, and there were groups of fusiform cells between the glandular columns. I do not think it is possible to say that this patient had Addison's disease; the symptoms certainly do not suggest it, and the state of the left adrenal was too indefinite to allow of any conclusions.

In the following case a maximum grade of pigmentation was present, as illustrated in the colored drawing, for which I am indebted to Miss A. Blackwell. Except the bronzing there was no feature of Addison's disease. There has been no irritability of the stomach, and no extreme prostration, certainly no debility out of proportion to the general disease. I believe that in this, as in the cases above referred to, the deepening of the color is only part of a trophic change in the scleroderma, and has nothing to do with true Addison's disease.

CASE VIII. Diffuse Scleroderma; Intense and General Pigmentation with Patches of Leucoderma; Swelling of the Inguinal Glands; Progressive Advance in the Disease.—S. A. B., aged thirty-nine, a timber inspector, Virginia, was admitted to Ward E of the Johns Hopkins Hospital, May 21, 1896, complaining of weakness, bronzing of the skin, and inability to use his hands.

Family History.—His father died aged thirty-six, cause doubtful; his mother died in labor; two brothers died of diphtheria; one brother and one sister are living and well.

Personal History.—He has had most of the usual diseases of childhood. Three years ago he had rheumatic pains in the joints, but he was not laid up in bed. He had an attack of jaundice two years ago, which lasted several days. He was formerly a heavy drinker, but for some years past he has been more moderate. He had gonorrhea once; has never had syphilis. As a rule, he has enjoyed very good health, and has been able to work hard. His work has been out of doors, with only an average amount of exposure.

Present Illness.—About fifteen months ago he began to feel stiffness in the fingers of both hands, and a short time later his feet and hands became swollen. His face was also swollen for a month or two. He said that it was quite moderate, but he was sure that it was present, and he thinks it

¹ *Neurologisches Centralblatt*, 1889.

followed the feeling of stiffness in the hands. About four months after the first symptoms he noticed that his hands and fingers were becoming very dark in color. The trouble has progressed steadily, and within the past six months his legs have become so stiff that he walks with great difficulty, and the hands have become so much involved that he has almost lost power in them. He has noticed, too, a progressive involvement of the face, an uneasy sensation of stiffness on attempting to move the muscles, and lately an inability to open the mouth wide. For some months past there has been an increasing pigmentation of the skin of the face, and of the chest and abdomen.

His general health has suffered very much. He has lost in weight, and the appetite and digestion are much impaired, but he has had no vomiting.

Present Condition.—The patient is a small man, weighing only 102 pounds. Everywhere there is moderate emaciation. His hair and beard are dark; the eyes are gray; features look small and drawn. The skin of the cheeks and forehead is smooth and without wrinkles. The nose and ears look natural. The skin of the forehead is a little glossy, but he can wrinkle it voluntarily. He can retract the upper lip, and move voluntarily all the muscles of the face, but he says the movements are very stiff. The mouth cannot be opened to more than half the normal extent. The skin of the face and neck is very dark, suggestive at the first glance of Addison's disease. On close inspection of the face it is seen to be not uniform but patchy, particularly about the cheeks. The pigmentation is more intense on the neck than on the face. The skin of the forehead feels thin; it is somewhat hidebound, and is with difficulty picked up. Over the cheeks it feels a little thick and brawny. There are no changes in the skin of the ears or of the scalp. Under the jaws it is thin and readily pinched, but on the front of the neck, in the cervical triangles, over the sternum and clavicles, and over the lower part of the back of the neck it is indurated and parchment-like. In these situations it is seen to have a drawn, tight appearance, which is well shown in the photograph. (Fig. 1.) The sternomastoid muscles and the clavicles stand out very prominently. Over the thorax the skin is deeply pigmented, in places quite patchy, and there are lines in which it is very deep. It is absent over the pectoral fold, and is not nearly so marked in the axilla; the areolæ of the nipples are not very dark. It is very intense on the skin of the back, except the supraspinous fossæ. The skin over the upper part of the chest is quite hidebound. It is very much less marked in the axillary region. Over the back the skin is very leathery and dense. When he attempts to move the arms they cannot be raised above the level of the shoulders, and the motion backward is very much restricted, owing to the induration of the skin over the shoulders and chest.

The skin of the abdomen presents a very intense pigmentation. Toward the pubes and in the iliac fossæ it is as dark as a mulatto, with scattered areas of leucoderma, which give it a peculiar mottled appearance.

FIG. I.



There are bunches of enlarged lymph-glands both above and below Poupart's ligament on both sides. These are well shown in the photograph. There are no other glandular enlargements in the body. The arms are thin, musculature feeble; the motion is much limited. They cannot be moved backward to any extent, and he cannot raise the elbows level with the shoulders. The skin feels everywhere stiffened, less in the upper than the lower arms, in which it can scarcely anywhere be picked up in a fold. There is no difference in the two arms. The arms can be flexed and extended. The pigmentation of the skin is moderate on the upper arms, and deepens greatly toward the wrist.

Hands. — Right: Pigmentation of the dorsum is extreme. Over the first, second, and third metacarpal bones there is a large patch of leucoderma. The skin of the hands is of a deep mahogany brown. The patch of leucoderma has in it many spots of pigmentation, which are shown in the accompanying plate. Flexion and extension of the wrists are much restricted, owing to the induration of the skin. The fingers are in a position of semiflexion and cannot be extended; movement at the metacarpal joints is very limited. The second phalanges cannot be extended upon the first, nor the third upon the second. The position of the hand is well represented in the photograph and in the colored plate, which also shows the deep pigmentation. There is a great deal of hair about

the wrists, more than on the arms, but this he says was always present.

The left hand presented the same appearance, except there were fewer patches of pigmentation. There were no losses of substance on the pads of the fingers; the nails were natural looking; there was a small festering sore on the first phalangeal joint of the middle finger of the left hand. The fingers and hands feel cold and hard as though modeled in wax. The skin is everywhere closely united to the subjacent tissues, and cannot be folded or pinched. The palmar surfaces are not affected—not pigmented. The disability in the hands is extreme, and though it does not hurt him to make any movements, yet he can only just approximate the thumb to the fingers, and has great difficulty in feeding and clothing himself.

Legs.—The pigmentation is very marked on the thighs and is mottled on the inner aspect. The pigmentation is much less on the legs; less, in fact, than on any other part of the body. The legs cannot be fully flexed on the thighs—can scarcely be brought to a right angle. The movements in the ankles are fairly good. The skin of the thighs is uniformly involved, feels stiff and leathery, not more marked in one place than in another. When the legs are flexed there is a sort of creaking in the extensor tendons. Over the legs and feet the skin is very hidebound and can nowhere be folded. The knee-jerk is present.

Sensation.—A touch or a pin-prick is everywhere felt. Heat and cold are readily distinguished. The skin is dry, but he says he sweats in the warm weather and the palms of the hands are now moist. The mucous membranes are normal and present no pigmentation. There is no change whatever in the condition of the urine; sp. gr., 1025; acid reaction, no albumin, no casts.

Examination of the heart and lungs and abdominal viscera was negative. The temperature was normal. Pulse from ninety to ninety-five per minute; rather small, but of good tension.

The patient remained in hospital until June 2d. He was given thyroid extract on May 23d, grains iii t.i.d.

November 12, 1896. A note from this patient's brother, who is a physician, stated that he has taken the thyroid extract at intervals ever since he was in the hospital. At first he thought it benefited him, but of late he has been slowly but steadily declining; the joints are stiffer and the skin very much harder.

Patient heard from September 21, 1897. He stated that he was in very much the same condition, so far as his general health was concerned. The joints were stiffer and his hands were nearly closed, and the fingers very badly drawn in. The discoloration he reports to be the same. The thyroid extract has not done him any good.

V. THE THYROID TREATMENT OF SCLERODERMA.

Singer¹ found the right lobe of the thyroid gland much reduced in size in a typical case of diffuse scleroderma, and suggested that the disease was due to dysthyreosis in consequence of the chronic fibroid

¹ *Berliner Klin. Wochenschrift*, 1895, No. 11.

changes in the gland. By far the most important contribution to the question has been made quite recently by Hektoen.¹ In a woman aged fifty-one, with diffuse scleroderma, the thyroid gland was found to be small and fibrous, weighing only fourteen grams (average about twenty-two). It was the seat of extensive fibrous changes with atrophy and destruction of the glandular portion. The iodine separated was only 2.94 milligrams, only one-third the amount contained in the normal gland. I know of no other cases in which the thyroid has been found diseased. Hektoen concludes: "Now, if athyreosis can produce such changes there can be no inherent reason why dysthyreosis, due to various causes, may not lead to scleroderma. In this case it lies temptingly near to assume that the endarteritis of the thyroidal vessels may have been the essential cause of the changes in the thyroid and, in accordance with the suggestions already made, indirectly of the scleroderma. Arteriosclerosis might, it would seem, lead to parenchymatous atrophy and fibrous growth in the thyroid as well as in other organs. Viewed from this point, the arteriosclerosis would seem to play an indirect but essential part in the genesis of the diffuse scleroderma of the old rather than the direct rôle advocated by Dinkler and others. The causes that may disturb the functions of the thyroid and the results thereof are various, and it seems warranted to suggest that the relations of arteriosclerosis, dysthyreosis, and scleroderma merit further study."

Marsh² of Troy, N. Y., has reported a case of scleroderma in a child aged two, which followed diphtheria. The condition was quite extensive. Marked improvement followed the use of the extract in grain doses. Dr. Marsh writes (December 29, 1897) that the child has recovered completely, and now shows no trace of the disease.

Dreschfeld³ used the thyroid extract in two cases of diffuse scleroderma. In one, there was improvement at first, and the skin became softer, and when the medicine was discontinued she noticed an increase in the stiffness. There was no ultimate benefit. In the second case the thyroid gland extract did not seem to do any good.

At the New York Dermatological Society on September 25, 1894, Dr. Lustgarten⁴ referred to a case of generalized scleroderma cured by the use of the thyroid extract. I can find no full report of this case.

The most successful case in an adult is one reported by Grünfeld,⁵

¹ *Journal of the American Medical Association*, June 26, 1897.

² *Medical News*, vol. lxvi.

³ *Medical Chronicle*, January, 1897.

⁴ *JOURNAL OF CUTANEOUS AND GENITO-URINARY DISEASES*, vol. xiii.

⁵ *Loc. cit.*

already referred to under the section on "Scleroderma and Graves' Disease." The scleroderma disappeared entirely after the use of the thyroid-gland extract. No atrophy was left in the affected areas. Four cases are referred to in Lewin and Heller's monograph, all unsuccessful.

Six of the cases here reported took thyroid-gland extract for periods ranging from ten days to nineteen months. In Case III. the patient only took the thyroid extract for a few weeks, and her friends stated that under its use she improved slightly. She died of an acute gastro-intestinal trouble, but I could get no information as to whether this had any relation to the use of the thyroid extract, or even whether she was taking it at the time. Case VI. took the thyroid extract from November, 1895, to June, 1896, in doses of from 2 to 5 grains three times a day. She improved, had no soreness of the fingers, and the general health was better, but she attributed her improvement more to general tonics than to the thyroid extract. This patient was in the early stages of the disease, and she certainly took the thyroid extract long enough to determine whether or not it had a curative action. In Case VIII. the patient was in an advanced stage of the disease. He took the thyroid extract in from 3- to 5-grain doses three times a day from May 23, 1896, until about the middle of November, 1897. He omitted it for a few days at intervals. According to the statement of his brother, who is a physician, it did not seem to do him the slightest good. In Case II. the extract was used almost continuously for nineteen months, most of the time in 5-grain doses. While he thinks that he is better, there is no obvious change. The disease has not progressed actively. Case VII. is very interesting, as the patient was in an earlier condition showing very marked vasomotor changes. He took the thyroid extract from the time of his admission to the hospital, June 17, 1896 to December 21, 1897, when I last saw him. As a rule he took two 5-grain tablets daily, occasionally reducing it to one. Though the condition in his hands has not improved, yet in the eighteen months the disease has certainly not progressed. His general health is very much better, and the vasomotor changes are not so evident.

One interesting point is brought out, particularly by these last two cases; namely, the harmlessness of the protracted use of the thyroid extract. In Case VII., though the patient had tachycardia, he took the remedy without any ill effects. In Case II. the patient gained in weight under its use. The thyroid extract has certainly no specific action in scleroderma, as it has in myxedema. In no

case did the skin of the affected regions become softer or regain its natural appearance.

In two of my cases the disease did not progress under its use, but this is the best that can be gathered from my own experience. Of course it might be said that it was only in the early stages that good results could be expected, but two, at least, of my cases had a fair trial, while the affected parts were still in the stage of infiltration and erythema.

In Dr. Marsh's patient—one of the few in which a permanent cure has followed the use of the thyroid extract—the question may be raised whether the case was one of diffuse scleroderma, or whether it was not one of acute sclerema—of the same nature as sclerema neonatorum, following diphtheria. The whole process was very acute, extending from the first inception to complete cure, over a period of only four months.

Altogether, my personal experience and the results, as recorded in the literature, do not favor the treatment of the disease by the thyroid-gland extract. It may be tried without harm, and should it fail, frictions, and salicin preparations should be used.

Book Reviews.

Cutaneous Medicine. Part II. LOUIS A. DUHRING, M.D. Philadelphia: J. B. Lippincott Co., 1898.

Part II. of Dr. Duhring's great work for which his brethren in the profession have waited, more or less impatiently, for nearly three years, is a better criterion of its scope than its predecessor, admirable as the latter is. It is enough to say the reader is quite ready to forgive the delay. A glance will suffice to satisfy even a captious critic that the time has been well spent.

This volume treats of classification, of the anemias, hyperemias, and inflammations, zoster being the last subject under consideration. It is always easier to pick flaws in work that is done than to do it, and nowhere is this so true as in classifying cutaneous diseases. At the same time, the reason for placing erythematous lupus, an inflammation terminating in atrophy, among neoplasms is not apparent. The rule by which the author denies any part to the etiological factor in his classification might well be "honored in a breach" where a class for parasitic dermatoses could find a place. Surely, in tinea versicolor, in pediculosis and scabies, if in no others, inflammation is adventitious. The scheme is the author's own modification of Hebra's. He has given it much thought, and it is as good as any we have. He has done away, very properly, with a special class for diseases of the appendages and will find many sympathizers in his feeling that it is duty-shirking to arrange a dermatological treatise alphabetically. In passing, it may be said that many of the reasons for his views on classification, not found in Part II., are found in his article which appears in these pages.

The first group of importance is erythema, which serves as an index of

the method of subject treatment. Erythema multiforme is the type. The variations from it receive consideration first, then comes the standard disease with its varieties. Erythema intertrigo, described as exhibiting mucoid secretion, belongs rather to eczema. Next follows urticaria, and the question arises whether urticaria pigmentosa is properly classed with inflammations. Gilchrist says the infiltration of endothelioid cells; their inflammatory character is problematic. Eczema occupies 110 pages. The merits of the treatise so far outweigh its faults that the latter are well passed over in silence. The half-tone illustrations are admirable, and show the clinical features far better than the crudely colored pictures which mar many of these works. If any further exposition of the entire inadequacy of definitions to define cutaneous affections were needed, that here given of eczema would set the final seal. An abstract of the treatment given has already appeared in the JOURNAL. Ecthyma is included as a clinical entity.

The chief interest of the volume, to the reviewer's mind, centers in impetigo and dermatitis herpetiformis. Final judgment in this court of last resort is passed on certain questions which it may be well to note. On page 447, Dr. Duhring says that the two should be regarded as distinct diseases, clinically at least, although there may be transition forms. The declaration is not made in so many words, but the inference is plain that in naming the disease which he first described, the adjective "herpetiform" was intended to refer, not to neuritic symptoms, but to grouping of the lesions. The description given of its clinical forms must stand forever as has Hebra's of lichen scrofulosorum and Wilson's of lichen planus. It is surprising that the author admits the cases described by Hallopeau, even to a place among transitions from multiform erythema. He has finally declined to substitute "multiformis" for "herpetiformis"; he says the disease is nothing if not herpetiform. Five types are given, erythematous, vesicular, bullous, pustular, and multiform.

Epidermolysis bullosa is, in inexplicable fashion, included with pemphigus, the writer himself stating that it is better classified under dermatitis. "The causal relationship which exists between neuroses and infections is well known" (page 460), but is that sufficient reason for describing pemphigus acutus and vulgaris under one heading? Demme's bacillus is responsible for the first, neurogenesis and infection are alternately invoked for the second. The author believes zoster is undoubtedly infectious in many instances.

"The clinician and the pathologist must labor together, one supporting the other" (page 225). Here we have it, and an admirable coalition of forces it is. Gilchrist has drawn and described from his sections the pathological changes in a number of the inflammations. The cuts, like the clinical pictures are inserted on separate leaves, giving them the setting they deserve. Appreciating the care bestowed on his work, the most striking fact to be noted is, with the exception of one or two diseases, such as urticaria pigmentosa which have characteristic pathological anatomy, the extreme meagerness of present knowledge and the utter impossibility of attempting a diagnosis by the microscope alone in cutaneous inflammation. Unna's unwarranted assertions as to absence of leucocytosis in dermatitis herpetiformis are, we trust, finally consigned to oblivion. Both the coadjutors seem inclined to accept Leredde's symptom (eosinophilia of blood and vesicle serum) in dermatitis herpetiformis.

In conclusion, it may be said that Part II. justifies the expectations raised by its predecessor. Higher praise could not be bestowed.

JAS. C. JOHNSTON.

A Pictorial Atlas of Skin Diseases and Syphilitic Affections. In photolithochromes from models in the Museum of the Saint Louis Hospital, Paris. With explanatory woodcuts and text. By ERNEST BESNIER, A. FOURNIER, TENNESON, HALLOPEAU, DU CASTEL, HENRI FEULARD, and LEON JACQUET. Edited and annotated by J. J. PRINGLE, M.D., F.R.C.P. Rueff & Co., Paris; F. J. Rebman, London; W. B. Saunders, Philadelphia. Parts VII. to XII.

A notice of the first six parts of this excellent atlas was printed in the March (1897) number of this journal.

We then spoke of the superior manner in which the plates were reproduced.

Since that time the succeeding six parts, which complete the work, have appeared. In them we observe the same general characteristics which make this contribution to the pictorial literature of dermatology one of the best of its kind. It is seldom possible to obtain by chromolithographic processes results which are as perfect as some of the plates in this atlas.

The four plates in Part VII. portray the following affections: An Eruption from the Bromid of Potassium; Hypertrophic Papular Syphilides; Rupial and Early Gangrenous Syphilides, and finally, two plates showing gangrenous gummata.

The grouping of these plates, which illustrate certain features in common, serves also to accentuate the points of differential diagnosis.

Hallopeau discusses in a clear and logical manner the occurrence of early rupia, and believes in certain cases its chief determining cause to be an excessive activity of the preexisting virus, while in others the fault lies with the individual inoculated.

The weight of evidence favors the view that the virus of syphilis in itself possesses the power of giving rise to suppuration independent of a mixed infection with the pus-producing organisms. Part VIII. contains plates illustrating the development of epithelioma from a lupus scar, erythema iris, the papulo-erythematous variety of lichen planus, and Biskra button.

Jacquet, who discusses the development of epithelioma in connection with lupus, concludes that the tuberculous process only prepares the way for the development of epithelioma by rendering the tissues more vulnerable. In connection with lupus there is not infrequently observed under the microscope an abnormal proliferation of the epidermis which sometimes results in a malignant growth.

It is, however, probable that the constant irritation of the tuberculous process determines the development of epithelioma, just as other irritative processes may do.

Among the plates in Part IX. which portray unusual cutaneous manifestations are those of Disseminated Lupus Pernio, and Gunmatous Tuberculous Lymphangitis Secondary to a Tuberculous Dactylitis.

In his remarks appended to the first of these plates, Besnier reiterates his views regarding the etiological identity of all the forms of lupus, including lupus erythematosus. To the reviewer Besnier's views appear entirely too radical and unsupported by sufficient proof.

It would appear more logical, in view of the facts, to assume that lupus erythematosus does not owe its existence to a single cause, but results from the action of various irritants, among which may be the tubercular toxins on the capillary blood-vessels.

It is true that erythematous lupus occurs in patients who have tubercular disease in the lungs, the lymph-nodes, and other organs, but the majority of individuals so affected, in this country at least, have no evidence

of tuberculosis. There is, furthermore, nothing in the histological picture at all comparable to lupus vulgaris, or other forms of local tuberculosis.

It would seem, therefore, that if there is any relationship between lupus erythematosus and tuberculosis it must be exceptional, and when met with, due to some of the products of the bacilli circulating in the blood rather than to the direct action of the organisms on the tissues.

Parts X. and XII. contain a number of plates showing extragenital chancres in unusual places, with a very comprehensive discussion on differential diagnosis by A. Fournier.

The plates of Paget's Disease and Trophic Ulcers of the hand and forearm are also worthy of special mention.

Darier speaks in a conservative manner regarding the nature of the cell inclusions met with in Paget's Disease, but the reader is led to believe that he is less inclined than formerly to regard them as parasitic.

Without further mention of the individual illustrations, all of which are well chosen and accurately reproduced, we can speak only in terms of the highest approbation of the complete collection with the accompanying text.

Some idea may be obtained from these plates of the unequaled variety and lifelike character of the Baretta Models in the Museum of the St. Louis Hospital, from which they are taken.

The thanks of our English-speaking colleagues are due to Dr. Pringle for his excellent translation and valuable notes in connection with the text.

J. A. FORDYCE.

The Treatment of Gonorrhea. Traitement de la Blennorrhagie chez l'homme et chez la femme. E. DELEFOSSE. Octavo, ix, pp. 261. Coccoz: Paris, 1897.

The aim of the author was to put into the hands of the practitioner a manual, where the various methods of treatment of gonorrhea are presented in a résumé without criticism, leaving to the individual reader the selection of the method. The weak points of every method are so masterfully brought in evidence by the writer in the very words of their authors, that the reader is naturally led up to accept the writer's own way of treating gonorrhea. Before introducing his method to the practitioner, the author gives a lucid and detailed description of the gonococcus regarding its form, size, localization in the cell, and staining methods. He advises the use of simple staining instead of Gram's, which "lost a good deal of its value, since it is known that many microbes, which are met with in the urethra, are decolorized by iodine" (p. 12). While this advice will do little harm to the practitioner, when followed in acute gonorrhea, it is hardly expedient to instruct the practitioner as the author does, to proceed in the same manner when he deals with a chronic case (p. 166), even if the practitioner is able to fulfill the author's requirements in being "actually familiar with microscopical researches" (p. 6). In our opinion, it is easier and more reliable for the practitioner to acquire a good knowledge and sufficient familiarity with the right use of Gram's method, according to Van der Bergh's directions, than to try to distinguish by simple staining a gonococcus in a chronic gonorrhea, when they are rare and deformed, an undertaking which would task the microscopical abilities even of expert biologists.

The author is a partisan of the abortive treatment, and endeavors to persuade the practitioner to attack the gonococcus in the first three days after suspicious coitus with instillations of a two-per-cent. solution of nitrate of silver—"the friend of the mucous membrane" (p. 36)—indeed, to help the mucous membrane "to chase out the gonococcus" before it makes itself at home in the niches and corners of the urethral mucous membrane. But

he forgets that the gonococcus often takes possession of the mucous membrane before the three days allotted by the author will elapse. Sometimes it is not present at all, even after a suspicious coitus, and the good easy practitioner will aim at nothing and hit it.

But the author himself recognizes that it is mostly a futile attempt, as the gonococcus appear in larger numbers, and he gives the practitioner the hint to stop in such cases harassing the gonococcus, and try with mild remedies, salol, salol-santal, and sometimes even total withdrawal of his interference (p. 91) to pacify the gonococcus. Usually the gonococcus yields to such a sensible and mild treatment, and the gonorrhea, from an acute, becomes a subacute, and later, chronic.

In this stage the author reminds the practitioner of the great danger of the "goutte militaire" for the tubes and ovaries of the woman who exposes herself, to the infection. He wisely urges the reader to destroy all the accessible nests and niches, where the gonococcus usually lurks, before beginning the treatment of chronic gonorrhea (p. 182). The best method of treatment of chronic gonorrhea is, according to the author, the retrograde instillations of two per cent. to one per cent. of nitrate of silver, "a method to which he returned after trying all kinds of treatments advocated in the last ten years" (p. 185). He describes in detail the way of performing the instillations, but he does omit to mention the symptoms accompanying such instillations. This is wise, as, if he should make the practitioner familiar with the inborn traits of the mucous membranes of the urethra and of the gonococci, to resent quickly interference, the former by hemorrhages, painful tenesmus, the latter by retreating in the deeper urethral tissues, or emigrating to other organs inaccessible to the meddling physician, many a practitioner would be deterred from using this method.

When the reader begins the fourth chapter, under the title, "Termination de la Maladie," he is full of expectation; he looks forward to an answer to the most important question, which is put to him by every patient, namely, does the author claim a cure for gonorrhea by his methods, or does he not. But he hopes in vain, as the author's cautious statement, that "in using this method, even if we have not a positive assurance, at least we have a great chance to avoid all contaminations" (p. 208), is accepted by the reader as a guarded admission, that even his method, "to which he returned after trying all other methods advocated in the last ten years," is not able to cope with "the most rebellious and most important disease." Would not the author "serve the practitioner" better and truly, if, instead of such a veiled answer, he would say in plain words that the cure of gonorrhea is *ultra vires* even of the specialist, in the present stage of the medical science?

And such a statement would be of immense benefit for the community at large, and would carry great weight with the medical profession as coming from the eminent coworker of the foremost school of genito-urinary diseases.

BOLESŁAW LAPOWSKI.

About Children. Six Lectures Given to the Nurses in the Training School of the Cleveland General Hospital. By S. W. KELLEY, M.D. Medical Gazette Publishing Co., Cleveland, Ohio.

The author modestly states in his preface that it is thought these lectures might be useful "to nurses, to intelligent parents, even to medical students and practitioners. The book lays no claim to being a complete treatise." Lectures I. and II. are devoted to a study of the anatomy and physiology of the child. These subjects are considered in a clear and orderly manner. The subsequent lectures deal with the more common accidents and diseases of early childhood, the interpretation of their symp-

toms, the management of sick children, both morally and therapeutically, and with the preparation of foods for the infant. Particular attention should be called to the wholesome words of advice about the moral treatment of children, with which Lecture VI. is concluded. Too much cannot be said in praise of it. Able practitioners sometimes fail partially, or entirely, in their treatment of children because they do not understand how to deal with them. As the author pertinently remarks, children are reasoning creatures, but their reasoning is from cause to *immediate* effect. Moreover, they are great "little sticklers for the proprieties, according to their code." Dr. Kelley is evidently a lover of children, and doubtless much of his success is attributable to this fact.

The reviewer regrets the limitation of his space. A closer criticism could be desired. The book will be found useful not only to nurses and students, but to physicians in active practice. It resounds throughout with a note of practical experience.

W. C.

Atlas of Syphilis and Syphiloid Skin Diseases. Atlas der Syphilis und Syphilis-ähnlichen Hautkrankheiten. MARTIN CHOTZEN, M.D. Leopold Voss. Hamburg and Leipzig: 1897. Parts I. to IV.

This new atlas is to consist, when finished, of twelve parts. Better work is extant in certain particulars, but on the whole it is a very fair effort. Heft I., devoted to the initial lesion and macular exanthem, is much the best of the four. Chancres in many locations are admirably pictured; that of the labium majus is perfect. Heft II. shows urticaria and pityriasis versicolor as well as syphilis; Heft III., a fine representation of lupus vulgaris; Heft IV., molluscum contagiosum and condylomata. The fault with the plates which fail to attain such excellence lies both in drawing and coloring. The efflorescences of syphilis, in particular, the papules, have the appearance of being stuck on as an afterthought. The plates are accompanied by text enough to explain their salient features; there is no fault to be found here. Considering the number of lithographs, six in each part, the price is most reasonable. It is three marks.

J. C. J.

Physician's Visiting-List for 1898. Philadelphia: P. Blakiston, Son & Co.

"Forty-seventh year of its publication," quoted from the title-page, speaks in no uncertain voice for any publication. Blakiston's List is as much of a standard in its line as we hope to see Dr. Duhring's new work become. It is of convenient size, and contains a heading for all the bookkeeping details most men need ever do, court decisions to the contrary, notwithstanding. No changes from the '97 edition are noted; they were not needed. The price ranges upward from \$1.00.

W. B. Saunders, the Philadelphia publisher, announces the early publication of the text-book of genito-urinary and skin diseases edited by Drs. Bangs and Hardaway, which has been so long delayed. The volume is a part of the series of "American Text-books."

We have received from the Morrison Print, New York, "A Study of Rheumatism, Gout, and Allied Affections," by Edmund L. Gros, M.D. After consideration of the etiology of these affections, the author outlines his method of treatment, giving preference to colchicum in the form of colchicine.

THE NEW YORK DERMATOLOGICAL SOCIETY.

TWO HUNDRED AND SIXTY-FIFTH REGULAR MEETING, HELD ON TUESDAY EVENING, NOVEMBER 23, 1897.

DR. S. LUSTGARTEN, *President, in the Chair.*

A Case of Tuberculosis of the Face Treated with Koch's Modified Tuberculin (T.R.). Presented by DR. LUSTGARTEN.

The patient was a young colored man with tubercular lesions involving the nose and upper lip. When he had first come under the speaker's observation, about a year ago, he had indubitable syphilis in the same area, which had yielded promptly to treatment. Recently these tubercular lesions developed. Dr. Lustgarten said the patient was receiving injections of Koch's modified tuberculin, the results of which were quite encouraging in the first three weeks of the treatment. Then new lesions began to appear in spite of increasing doses. The last dose reached was three-fifths of a milligram. There never was any general reaction. The case will be presented at a subsequent meeting.

DR. GEORGE T. JACKSON said the patient had been under his care for a time at the Vanderbilt Clinic. He had regarded the lesion on the face as a tubercular syphiloderm. The present appearance was still rather that of syphilis than of tuberculosis. The case was similar to another he had seen at the Presbyterian Hospital in which it was long a question of lupus or syphilis. It was very possible that in such cases there was, as Dr. Lustgarten maintains in this case, a mixed infection.

DR. P. A. MORROW said he had had an opportunity to observe quite a number of cases of tuberculosis of the skin treated with Koch's original tuberculin, and the results were not very encouraging. With the new tuberculin he had thus far had no experience.

DR. LUSTGARTEN, in closing, said that the patient had been subjected to very energetic antisyphilitic treatment, both locally and internally, without producing any effect.

A Case of Multiple Idiopathic Hemorrhagic Sarcoma of the Type of Kaposi. Presented by DR. LUSTGARTEN.

The patient was a man, sixty-five years old, with numerous tumors covering the upper and lower extremities, especially toes and fingers. The patient stated that his eruption first appeared about eighteen months ago, although it is probable that it dates back much further. It began in the form of little hard masses on the inner aspect of both thighs; this was followed by swelling and discoloration of the lower limbs and a sclerodermatous infiltration of the skin, which was rather unusual. A microscopic examination of the growths has shown that they are sarcomata, of the spindle-celled variety. The patient is being treated with sodium arseniate, hypodermically administered in increasing doses. He receives at present $\frac{1}{3}$ grain daily.

Case of Lupus Erythematosus. Presented by DR. JACKSON.

The patient was a woman, twenty-five years old, single; a typewriter by occupation. When she was first seen, in November, 1895, she stated that she generally felt well. Up to August, 1895, she had had no special trouble with her skin. About that time she had her face sunburnt, and following this her present eruption appeared on the nose, subsequently on the neck and fingers, about the nails. The eruption at that time presented every appearance of a papular eczema. It was pruriginous, and was composed of papules and patches on the nose, face, and neck. About the nails the

skin was of a dark red color, but there was no scaling and the nails were unchanged. Lassar's paste was prescribed locally, and the rhubarb and soda mixture for internal use. A favorable prognosis was given. After three-weeks' treatment, the face, with the exception of the nose, was nearly well. The tongue was clean. Subsequently, she had an acute outbreak of the eruption, preceded by constipation and a disordered stomach. Since December, 1895, the case has run along in this way, getting better and worse, both as to the digestion and the eruption, which occupies now about the same regions as it did when first seen. Latterly, behind the ears, the skin has begun to cicatrize superficially, if that expression is allowable, so as to suggest the diagnosis of lupus erythematosus, a diagnosis already made by two of the members of this Society. During the two years the patient had been under his care, he had endeavored to regulate her diet and exercise, a hard task under the circumstances, and to aid her digestion. Dr. Max Einhorn, who had also seen the patient, suggested that she should wear an abdominal bandage to support a slightly prolapsed stomach, which was done to her comfort and benefit. Locally, ichthyol, tar, lotio alba, resorcin, turpentine, Fowler's solution (diluted), all have been given a fair trial. All have seemed helpful for a time, but none have cured her. When her stomach behaves properly, her face is better.

Dr. Jackson said he was inclined to the diagnosis of lupus erythematosus on account of the extreme obstinacy of the affection to all treatment, the peculiar affection of the skin about the finger-nails, and the appearance of delicate cicatrices in the patches behind the ears.

DR. FORDYCE thought the case was probably one of lupus erythematosus, preceded by a superficial erythema. In a similar case, which was under his observation for over a year, there was at first a superficial erythema, which, on disappearing, left a slight atrophy behind. The lesions remained well for a time and then recurred.

A Case of Lupus Erythematosus. Presented by DR. FORDYCE.

The patient was a woman, seventy years of age. Twenty years ago she had an eruption involving the scalp. About a year ago the left side of the face became involved and later on the right side. There is a slightly atrophic condition of the lower lip. Both forearms are the seat of an itching papular eruption which has existed about one year. There is no history of the eruption ever having been moist. In some locations there is a distinctly atrophic condition of the skin.

DR. S. SHERWELL said he thought the eruption on the forearms was a chronic eczema and had nothing to do with the lupus erythematosus involving the face.

DR. LUSTGARTEN agreed with Dr. Sherwell that the eruption on the hands and arms was distinct from that on the face and scalp. In the latter regions he regarded it as quite typical of lupus erythematosus.

A Case of Disseminated Carcinoma of the Trunk. Presented by DR. ALLEN.

The patient was an old lady whose right breast had been amputated for carcinoma by Dr. Allen on March 16, 1891. The operation included the whole of the axillary contents (excepting the vessels and nerves), and portions of the pectoral muscles. After the operation the patient had remained perfectly well for about four years. Then a nodule appeared in the line of incision, and since then the disease has gradually spread until it now involves the anterior lateral and posterior aspects of the right chest-wall and the opposite breast.

Tender and, at times, painful nodules have recently developed in the skin over the lumbar region.

The general health is fairly good, and the superficial ulcerating surface

covering an area of some six by four inches, is not painful. General tonics and small doses of opium were being given. Staining the surface with methylene-blue solution and the use of nosophen in powder and as an ointment had both been followed by some signs of improvement.

DR. MORROW said that if the patient lived long enough—which was improbable, judging by her age and appearance—she would probably develop a pronounced form of malignant disease known as *cancer en cuirasse*.

A Case of Scleroderma.—Presented by DR. MORROW.

The patient was a woman, twenty-eight years old, who had once before been presented to the Society in 1878, over nineteen years ago. In that year the patient had been admitted to the Hospital for Ruptured and Crippled for the relief of talipes valgo-equinus of the left foot, and a full report of the case has been published by Dr. V. P. Gibney, under the title "A Case of Scleroderma vel Morphaea, with Hemiatrophia Facialis, Alopecia Areata, and Canities," in the *Archives of Dermatology*, April, 1879. It was interesting to note the changes that have taken place since the patient was originally presented. Recently the patient has been delivered of a healthy, well-formed child. In Dr. Gibney's report the following paragraph occurs:

"To the left of the posterior fontanel is a large lock of gray hair, a localized canities, while the scalp from which this grows presents no induration or atrophy, and is freely movable on the underlying tissue. The mother says this gray hair came first with the other signs of disease, and has existed about an equal length of time." This localized canities, Dr. Morrow said, is now represented by a mere strand of gray hair.

Dr. Gibney's report continues: "Over the left fossa is an area of baldness, one by one and one half inches in size, giving undue prominence to the blood-vessels here by the thinness of the skin, which is smooth, transparent, and mobile. This, so the mother says, has lasted a long while, and is called, Dr. Bulkley informed me some months later, alopecia areata." This area of baldness had increased in size to two by two and one-half inches, and over its surface the arterial vessels can be distinctly seen.

The original report continues:

"In the inferior maxillary region, left side, the skin presents a slightly indurated appearance, mottled irregularly, and is freely movable. This area is bounded above by a line from the angle of the jaw to the angle of the mouth. From this point the margin extends to within a line of the symphysis, thence to thyroid, thence irregularly to angle of the jaw again. It corresponds closely with the distribution of the inframaxillary branch of the facial nerve. Within this area and immediately to the left of the symphysis the skin is depressed into a sulcus, and hugs the bone closely, so that no movement can be made. Three lines to the left of this is a similar groove-like cicatrix, extending up to the angle of the mouth, drawing this angle down perceptibly. The incisors are very prominent, and the upper jaw overlaps the lower to the extent of half an inch. The lower half of the face, left side, affected by the *hemiatrophia facialis*, is about one-third smaller than that of the right side. There are no marks of disease on the upper limbs or on the thorax."

Dr. Morrow said an examination at the present time showed that the middle and left lateral incisors have been lost. There has been an arrest of development of the bones on the left side of the face, if not an atrophy.

The report continues: "In the umbilical region, to the right of the median line, is an obliquely oval patch of altered skin, five inches by one and seven-eighths in size. The color is pale, and the appearance in general exactly like that of an old vaccination scar." This patch is now six and one-half by three and one-half inches in size. Over the whole lower abdominal region, the crests of the ileum and the upper thighs are numerous ribbon-

like striæ, the result of localized atrophy of the skin, which are probably due to pregnancy. Running down in the posterior femoral region there is a deep cleft.

DR. FORDYCE thought there was probably some central lesion, which would account for the unilateral atrophy of the face and the left lower extremity.

DR. V. P. GIBNEY said he was interested in the case chiefly from the standpoint of an orthopedist. The girl had been under his care in 1878 for a talipes valgo-equinus of the left foot. He lost sight of her until last summer.

The deformities of the joints from which the woman is suffering, Dr. Gibney said, were probably the result of the sclerodermatous or atrophic condition of the skin.

DR. BRONSON said he did not see why the case should be called one of scleroderma. The atrophic lesions which the patient presented at this time bear little resemblance to those of scleroderma, and were probably of central nervous origin.

DR. JOHNSTON thought the case was one for the neurologist rather than for the dermatologist.

DR. MORROW, in closing, said the history of the development of this trouble on the face corresponded to the classic evolution of progressive unilateral atrophy, and he presumed that the same pathological process was responsible for the lesions on the face and on the lower limb. At present the lesions are not typical of scleroderma, excepting the hidebound condition that is noticeable over the bony prominences.

A Case for Diagnosis.—Presented by DR. ELLIOT.

The patient was a woman, thirty-three years old, a native of Pennsylvania. Her family history is negative, with the exception that her mother died of consumption. The patient states that after the birth of her child, five years ago, the lochia stopped on the second day, and subsequent to that her present eruption made its appearance. The eruption is located on the arms, and consists of isolated lesions, deep-seated, of variable size, doughy in consistency, not sharply defined. At first the skin is not reddened, but during the course of the lesion it becomes violaceous and purplish in color. Softening occurs gradually, and when one is opened pus first and then cheesy matter comes out. Some of them have opened spontaneously. The eruption has always remained limited to the arms, with the exception of one lesion on the thigh. Dr. Elliot expressed the opinion that the process was a tubercular one.

DR. ALLEN said the case had reminded him of one which had been under his care, a boy, with hip-joint disease probably of tuberculous origin, who had lesions similar to these, occurring all over the body for a year or more previous to his death. He had regarded the lesions as tuberculous in character, the result of a generalized infection.

DR. T. C. GILCHRIST of Baltimore thought the case should be classed as one of scrofuloderma. He suggested, as an aid to diagnosis, that some of the fresh pus be examined for tubercle bacilli and also after treatment with liquor potassæ. The speaker said that in some of these so-called tubercular cases, the tubercle bacilli were not always found, but other organisms allied to the yeast fungi, *viz.*, blastomycetes were seen, and two such cases had already been recorded by him. Dr. Gilchrist then referred to a case in a colored girl of what appeared to be tuberculosis cutis on the face, accompanied by enlarged glands in the neck. The sections from the cutaneous lesions and the glands demonstrated the presence of large numbers of calcareous bodies, which presented some similarity to Sanfelice's saccharomyces litogenes. Cultures and inoculation experiments which had been

carried out by Dr. Stokes and himself, had not sufficiently proved to them as yet that they were dealing with another case of blastomycetic dermatitis, but the case was still under observation. In Dr. Elliot's case the speaker advised that inoculation experiments be carried out with the contents of one of the unopened abscesses, and cultures also be made; in this way one would, of course, arrive at a clearer diagnosis of the case.

DR. SHERWELL regarded the eruption as a lymphangitis, possibly due to the patient's occupation. He thought the case might be classed with the indurated erythema of Bazin.

DR. LUSTGARTEN, who had seen the case before, said he was inclined to look upon it as a scrofuloderma. He agreed with Dr. Gilchrist that a careful pathological investigation was necessary before an exact diagnosis could be made.

Case for Diagnosis.—Presented by DR. GEORGE T. JACKSON.

The patient was a married woman, forty-six years old; an Italian. She had had six children and two abortions. Her general health was good, and apart from a scaly eruption on the palms she gave no history of other skin diseases. Three years ago she had an eruption on the palms which she says was just like the present eruption. It was treated with iodid of potassium internally, and locally with some black plaster. When she first came under Dr. Jackson's care she had been using vaselin on the hands and they appeared simply red; the skin was dry and thickened, and the lines of the palms were much accentuated. The appearance was very similar to an eczema of the palms. After a few days, without local treatment, the palms became covered with abundant, silvery-white, glistening, psoriasis-like scales. The diseased patches terminate in a sharp, well-defined border, which is particularly distinct upon the backs of the fingers; these are implicated in the disease to about half way from their ends to the hands.

On November 10th the woman was put on potassium iodid internally, and diachylon ointment locally. Ten days afterward the eruption had spread slightly on the backs of the fingers. The woman is free from eruption elsewhere. Her scalp shows some dandruff. One member of the Society, who had already seen the case, diagnosticated it as a form of keratosis; another as a palmar psoriasis, while the eruption bears a close relation to palmar psoriasis, the extreme rarity of this affection on the palms alone should be borne in mind.

A Case of Prurigo (Hebra).—Presented by DR. LUSTGARTEN.

The patient was a female, fifteen years old. Her parents were healthy, and she was the oldest of four children. She was born in Russia, and lives in poor circumstances in the tenement-house district. The eruption of which she complains first appeared upon the limbs (both upper and lower) at the age of one year, shortly after an attack of what was supposed to be scarlatina, and has persisted up to the present time, with occasional remissions. It is accompanied by pronounced pruritus, especially during the cold weather. The skin of all the extremities is markedly thickened, dry, and pigmented, showing bluish-brown marks of previous lesions. The limbs are densely covered with small, sub-epidermoidal papules, occasional vesicles and pustules, and dried-up crusts resulting from scratching. There is a group of similar lesions upon the glabella of the forehead and a few scattered papules on the face, neck, and body. No glandular swellings are visible. The hands, feet, nose, and ears are bluish in color and cold to the touch. Very intense itching is associated with the affection, especially at times of fresh outbreaks in the spring and late summer.

The patient complains of general weakness and loss of vigor. Her menstruation, which began a year ago, is irregular. The peculiarly localized, densely grouped inflammatory papules, the pruritus, and the vaso-

motor disturbances are the characteristic features of the case, aside from secondary changes affecting the skin and due to the chronicity of the trouble.

A Case for Diagnosis.—Presented by DR. ALLEN.

The patient was a young man who was employed in a slaughter-house as a dresser, often having the bare arms imbedded to the shoulder in the entrails of beeves. Two weeks ago, probably as the result of an infection following some slight injury, there developed a lesion midway between the left elbow and the shoulder, which became surrounded by a ring-like area of spreading erythema. Two weeks afterward, without any history of injury to the opposite arm, there developed here a similar lesion, both being symmetrically situated. The lesion on the left arm had persisted up to the present time and bore some resemblance to the erysipeloid of Rosenbach, seen upon the hands of those having to do with meat, fish, etc. The speaker had several times observed symmetrical lesions of this erysipeloid upon the hands when the injury was confined (so far as history or objective sign indicated) to one side alone.

A Case for Diagnosis.—Presented by DR. J. A. FORDYCE.

The patient was a young woman with a circular ulcer of the skin of the right breast; the lesion was about an inch and one-half in diameter. The patient stated it commenced about three weeks ago as a pimple and spread in a peripheral manner. It is extremely sensitive to touch and painful, especially at night. The case was probably one of hereditary syphilis. The central incisor teeth are notched, and she gives a history of having had an interstitial keratitis when she was twelve years of age.

DR. T. C. GILCHRIST of Baltimore exhibited a number of microscopic slides of cutaneous lesions. Among these were a number of specimens illustrating the microscopic appearance of wheals which had been excised at definite times from cases of U. factitia after the wheal had been raised with the finger-nail. The demonstration showed the undoubted inflammatory character of the wheals. In some sections, which had been excised fifteen minutes after the appearance of the wheal, there was not only acute inflammation, but also death of the polynuclear and connective-tissue cells. This seemed to show, Dr. Gilchrist said, that the eruption was due to some active poison which was set free into the tissue and thus caused the inflammation and death of these cells.

Dr. Gilchrist also showed microscopic specimens of herpes zoster in negroes, of the vesicle of varicella in which the protozoa-like bodies could be seen; of pemphigus pruriginosus (early stage); of purpura hemorrhagica, where one lesion had been excised six hours after its appearance; of a non-inflammatory double comedo, excised from the face; of urticaria pigmentosa, where large numbers of mast-cells were seen, and of tinea favosa.

THE NEW YORK ACADEMY OF MEDICINE.

SECTION ON GENITO-URINARY SURGERY.

RAMON GUITERAS, M.D., *Chairman.*

A Case of Chancre of the Tongue.—DR. FOOT presented to the section a young woman who had an unusual condition of her tongue. The case was of special interest because it was one of deep double lesion, specific in nature, in a peculiar position.

It has been two or three months since she noticed any trouble with her tongue. Two weeks before, she had two large swellings in her neck. She

also had swelling of one eye, which was probably due to her use of it in her occupation as bookkeeper; this eye trouble was probably symptomatic and not connected with the condition of the tongue.

There is little doubt but that her trouble is a primary syphilitic condition of the organ. When the speaker first saw her two weeks ago, the lesion was much redder and her tongue more swollen. He removed a section of the lesion for microscopical examination, which revealed little. She complained much of headaches.

Proto-iodid of mercury was given her, with the result that her headaches were relieved and the swellings in her neck grew less in size. He had been at much pains to get a history of her trouble. He was sure the young lady was perfectly innocent and unacquainted with the character of her trouble.

The patient kept company with a young man who appeared to be perfectly healthy. While being examined she volunteered the information that another young man was attentive to her before this one, who had an eruption on his face. The speaker had endeavored to get the first young man to come to his office for an examination, but he had failed in that attempt.

New Instruments.—DR. JOHN VAN DER POEL presented to the section a "Janet" sterilizer for small instruments.

The speaker added that the sterilizer was not only for small instruments, but also for steel instruments. It consisted of a boiler and a cooler. The former acts rapidly with two jets placed beneath; so soon as the proper temperature is reached one jet only is used to keep the temperature at the proper point, and so does away with constant watching. The cooler contained cold sterilized water, sterilized the day previous, and allowed to run into the cooler when used. The workings of the sterilizer were shown to the section.

The advantage claimed for the instrument was that, as soon as the instruments were boiled, they could be immediately placed in the cooler and so be ready for use; this was of especial advantage in office practice, where economy of time was a consideration.

DR. JOHN VAN DER POEL said that owing to the kindness of Dr. Valentine he was enabled to show the section an Albarran urethrotome, with a small knife and a scale, as found in other urethrotomes.

The advantages claimed for it were: First, it is of small size, being about number 7 or 8 of the French scale; second, it cuts only at the seat of stricture, and cuts not only on the roof, but can also be so rotated that it can be made to cut from the side; after the stricture is cut, the knife can be replaced. The caliber of the urethra is determined by means of the attached scale.

At the head of the instrument is a filiform guide, which is passed through the stricture; the instrument follows, and so gets behind the stricture. After cutting the stricture on the roof it can be turned and cuts made into it from the side, if necessary. After closing the instrument it is withdrawn, leaving the filiform in place; on the projecting end of the filiform is a screw, on which is fastened a steel rod, and the filiform is then reintroduced into the bladder. Next, an open-headed catheter is passed over the steel rod and filiform, and so on into the bladder; the steel rod and filiform are then withdrawn, and the catheter left *in situ*.

DR. FERD. C. VALENTINE demonstrated several new genito-urinary instruments. The first of these, Valentine's new urethral and intravesical irrigator, was offered as a decided improvement over all other apparatus that the author had before described. The essential features of the apparatus are in the stop-cock, combined with a metal shield. This not only protects the surgeon's and the patient's garments, but from its simplicity makes all parts of urethral and vesical irrigation so easy, that it can be per-

formed without instruction or special directions of any kind. The author called particular attention to the metal shield, which proved not only a marked convenience but also a great economy over the glass shield he formerly employed. In every way, the speaker claimed, this new apparatus is cheaper, better, and more easily managed than its predecessors.

Albarran's urethral cystoscope was also demonstrated by Dr. Valentine. The essential characteristics are in combining an ordinary cystoscope, an irrigating cystoscope, and a ureteral cystoscope in one instrument. The last-named is so arranged that by an external eccentric-wheel the sound or catheter within the bladder can be given any angle, facilitating its penetration into almost any ureter. Dr. Valentine thought this device rendered ureteral catheterization surprisingly easy.

Kollmann's irrigating dilators were next shown by Dr. Valentine. As their name indicates, these instruments are devised to irrigate the urethra while it is being dilated. The speaker did not recommend these dilators except to those whom practice has given great delicacy of touch. In the hands of others, they might easily prove dangerous. His own experience did not warrant his advising these irrigating dilators to supersede post-operative irrigation with the apparatus he first described.

Wossidlo's centrifuge was also shown by Dr. Valentine. This instrument requires no clamping, but can be operated even upon the microscope table, where it makes no noise and communicates no vibration. This instrument, for its cheapness and convenience, is especially recommended to the general practitioner.

DR. SWINBURNE said that he was much interested in Dr. Valentine's shield and nozzle for urethral and vesical irrigation; thought it very ingenious, and it seemed to be thoroughly adapted to the purpose for which it was intended; at the same time he thought it well to remember that the operation could be performed by much simpler means, and he did not feel inclined to use an elaborate instrument when a simpler one would perform the same work with equal facility. The shield which he used was an idea which he had obtained from Dr. Valentine himself, namely, to use the half of a hollow india-rubber ball, which can be bought at any toy store for 10 cents. A small hole, slightly smaller than the rubber tubing used, is cut in the middle of the shield and the rubber tubing is slipped through the hole, with the concave side of the shield toward the nozzle; the tubing is then slipped on to the nozzle and the shield is pushed forward so that it fits firmly against the nozzle.

The nozzle which he had found best adapted for irrigation was a glass nozzle which comes for a nasal douche. It has a bulbous extremity, the hole is just the proper size for the irrigating stream, and its length—two inches—is important, for this brings the shield exactly the right distance from the meatus, so that while irrigating the anterior urethra every drop of fluid projected from the urethra is caught by the shield and falls into a pus-basin held by the patient. With this simple instrument irrigation can easily be done in one's office, without spattering either patient or the physician. By holding the rubber tube with thumb and forefinger behind the nozzle the pressure of the fluid can be regulated, and by the tactile sense one can readily know whether the amount of pressure is too much or too little.

DR. MEYER thought that it was necessary to possess all the instruments in the market in order to make perfect examinations, and that he was decidedly in favor of having all these instruments himself.

Casper's cystoscope he has used frequently on the female. This instrument can be used in the office even in those cases which are afflicted with tuberculosis. The Casper instrument has given him entire satisfaction.

DR. FULLER thought that the arrangement by which one could change

the vesical end of the catheter so that it could more easily slip into the end of the urethra was a most useful one. He thought that the device of slipping the catheter through the slot was an admirable one. The method of putting the bougie into the ureter and passing the tunnel catheter was a most ingenious one, same as was done in the operation for stricture.

DR. GREENE asked whether one got a better field of view with Albaran's instrument than with Casper's: that he had found it difficult to find the ureter with this instrument.

DR. MEYER stated that it was his practice to locate the mouths of the ureters with an ordinary cystoscope, and then to withdraw it and introduce the Casper instrument.

DR. CHARLES H. CHETWOOD said that owing to the necessity of postponing, at a previous meeting, the discussion upon a device presented by him for urethral irrigation, he had brought his instrument with him to show in connection with that of Dr. Valentine for the same purpose. He had had the honor of witnessing the working of Dr. Valentine's instrument in his own hands, and it was partially as a result of that observation that his own had developed.

The permanganate of potash, which was probably more used than any other substance for irrigating purposes, was largely responsible for the unpopularity of this method with those who objected to sprinkling themselves and their patients and staining their hands with the solution used. To overcome this objection, and at the same time to accomplish a proper distention of the urethra, the speaker believed it to be necessary, first, to discard the catheter for anterior irrigations, and, second, to obviate the necessity of withdrawing the nozzle of the irrigator to empty the canal after each inflation.

The advantages claimed for the instrument are the ease and cleanliness with which it can be operated, it being possible to flush out any section of the urethra without withdrawal, and the pressure moderated or entirely removed by the action of one of the fingers.

It could be taken apart and cleaned in a small vessel. It is not difficult to operate it in any posture, and that for those who desire to perform posterior urethral irrigation by overcoming the resistance of the "shut-off" muscle it facilitates that procedure; for his own part, the posterior urethra, he preferred to use the catheter, having previously irrigated the anterior urethra in the regular way.

The success and satisfaction which has attended its use in private and dispensary practice had prompted him to present this instrument upon its merits.

DR. HEIMAN, speaking of Wossidlo's centrifuge, said that the instrument did not give the necessary revolutions; that 600 to 800 were not enough. Even in urinary work the number of revolutions must be, at least, 1000 or more to the minute.

DR. VALENTINE closed the discussion. He said that if Dr. Meyer looked for the ureter first with the ordinary cystoscope, and then introduced the Caspar cystoscope, with all due deference to Dr. Meyer, it seemed to the speaker that this was giving to the patient unnecessary torture. He thought that if one could use it like the ordinary cystoscope to find the mouths of the ureter, one should do so and at once.

He referred to the facility with which the pelvis of the kidney could be washed out.

Albaran mentions another point; that is, that he is able to pass in large catheters; catheters even as large as No. 12. No. 10 has been passed and left in position, in one instance, for ten days; when withdrawn there was no incrustation.

In regard to the ingenious instrument for urethral and intravesicular irrigation, shown by Dr. Chetwood, he considered it a very pretty one, and one that could be easily sterilized; he objected to it because it engaged the continual attention of the right hand, the same as does the one referred to by Dr. Swinburne. The tube must be continually compressed in these instruments.

The speaker said that it did not make any great difference what instrument the doctors used, so long as they irrigated the urethra.

The centrifuge did not run over 300 or 400 per minute.

DR. WILLY MEYER then gave a demonstration of Freudenberg's modification of Bottini's Incisor for the galvanocaustic radical treatment of hypertrophy of the prostate.

He said that at the last meeting of the Section on General Surgery, Academy of Medicine, he had the honor of demonstrating Bottini's instrument. Like the lithotrite, it had a male and a female blade. In the male blade is a platinum knife which can be heated red-hot by means of electrical attachments. At the end of the instrument is a screw, turning which allows the small platinum knife to emerge. Connected with the instrument is a cooling apparatus; this consists of a small tube which runs through the entire instrument; when the instrument is in use the cooling apparatus prevents injury to the parts about the prostate. By this apparatus the instrument is so cooled that the hand cannot detect the heat. This is the practical and fundamental principle of this instrument.

Dr. Freudenberg of Berlin, as the result of his experience with eighteen cases, found it desirable to modify the instrument in the following way: to give it more the shape of the lithotrite with a very stout handle. At the end of the instrument is a large wheel, the turning of which permits the platinum knife to appear.

Instead of having two separate wires, this instrument has the two wires enclosed in one sheath, which makes it more convenient to handle. Another advantage of this instrument is that the cooling fluid runs through the handle, so that this does not become uncomfortable to the hand of the operator. The cutting-blade is more firmly attached to the shaft of the instrument. This instrument has a platinum knife; an iridio-platinum knife has been thought to possess an advantage over it, because it requires a less amount of electricity to produce the red heat. This instrument possesses another great advantage, in that it can be taken apart and boiled without injury.

The operation, Dr. Meyer said, was an easy one. The bladder is first emptied; the neck of the bladder is then cocainized and the instrument introduced; the cooling attachment should be in the hands of an assistant, who takes care that the water flows through to properly cool the instrument. Feel in the rectum for your guiding points, and then cut as many grooves as is necessary; sometimes but three are necessary, one directly posteriorly, one anteriorly, and one into the largest lateral lobe.

Preliminary to the operation, he deems it necessary to make a cystoscopic examination. In his ten-years' experience he could state that he could easily diagnose enlargement of the prostate gland with the cystoscope. He had frequently seen and diagnosed enlargement of the median lobe. Dr. Keyes and the speaker had seen and diagnosed enlarged median lobe through the cystoscope, and this diagnosis had been verified later when a suprapubic cystotomy was done.

The speaker thought that one case reported by Dr. Freudenberg was of interest: A patient, three years previous to the published report, had had both testicles removed for hypertrophy of the prostate, with no effect upon the gland. Nothing more feasible was thought of than to do the suprapu-

bic operation; instead of this, the Bottini operation was done. During the night following the operation the patient commenced to pass water through his urethra, and in about three weeks he was cured. It seemed to the speaker that such cases prove a great deal.

In cases of hypertrophy of the prostate, the doctor thought that we should first try Bottini's operation, then resection of the vas deferens, then castration, and then prostatectomy by the various methods.

The speaker claimed that the batteries in this country were not good, and that they soon gave out if used from the street current. A storage battery with six large cells should be tried.

The speaker thought that this instrument should and would be more tried in the future.

DR. FULLER said that he was very much interested in the instrument presented by Dr. Meyer and thought the Section should thank him for his work in importing new German ideas. He did not think the instrument was as practical and useful as Dr. Meyer would lead us to believe. If the prostate was always like a collar, then one might do with it what Dr. Meyer claimed for the instrument. He said that the more one studied the prostate, the more grotesque he found the forms taken by hypertrophic processes. Sometimes you must remove from six to eight ounces of the prostatic growth before you could get the bladder to do well after operation. Many of these growths were quite extensive and must be shelled out. The speaker did not think that scarifying and burning holes in the prostate with that kind of an instrument would be a successful procedure. He thought that if prostatic hypertrophy was similar to nasal adenoids the instrument presented might be of value; after the use of the cautery or of acids growths of this nature shrivel up. The prostate was different. It lies more deeply and is covered with one-eighth to one-quarter inch of vesical tissue, and one must have a very hot knife to burn through such thickness of vesical or of urethral wall to get down to the hypertrophy. He thought that it would be a very dangerous procedure to burn an inch or two in that direction, as one would really have to do in some instances in order to operate effectively. He would rather do a prostatectomy and be sure of a radically good result. If prostatectomy be done by a skilful operator the death-rate is not large and is constantly decreasing. If an operator lost all the prostatectomy cases he performed, and then, as a result of his non-success, decried the operation, as one gentleman has done, the profession had a right to conclude that the blame lay with the operator and not with the operation.

It was formerly thought that castration in old men, as in young ones, should be without mortality, yet statistics show a large mortality from this operation in the aged, many of them also going crazy. It was reported by some when the castration fever was at its height, that if a man was castrated he would forthwith be cured of his prostatic condition, and call out "Hallelujah" in his enthusiasm over his cure, but no sober-minded operator seemed to get these striking results.

Bottini's instrument was used by Dr. Robert Newman of this city about eight or ten years ago. Dr. Newman thought he might accomplish much with it, but we have never heard that his experiments amounted to anything.

DR. RAMON GUIERAS thought that the instrument was an ingenious one and it seemed to him to be the least dangerous of all procedures for overcoming prostatic hypertrophy. He asked how soon it would be before the prostate failed to work again, and whether it would not be necessary in these cases from time to time to repeat the operation. To him it was difficult to conceive a well prostate after such operations on account of the amount of dense tissue which would result.

In regard to castration, the mortality was twenty per cent. The remaining eighty per cent. resulted in a number of cases of acute mania, melancholia, and mental complications. The majority of them were not relieved; and some of them only for a time.

DR. MEYER closed the discussion by stating that the original articles of Bottini were well worth study. Bottini was very well known in the profession and he has studied his method very carefully in more than eighty cases, and in not a single instance has he injured the rectum. Furthermore, that he does not burn holes in the prostate; he burns grooves about one inch long and about one-half an inch deep. You cut the internal sphincter, which does not allow the part to grow together again. Dr. Bottini has never seen a single recurrence in all his cases.

In regard to the advisability of prostatectomy, If we have a man, eighty years of age, with enlarged prostate, we certainly should not advise suprapubic operations if any other method would answer. If a man about fifty-five years of age presented himself for relief, he might be placed in bed and the suprapubic operation performed: but with patients about eighty years of age, then it becomes a different matter. Bottini has cured men in five minutes, and such results appeal to us all. The operation is done under cocain. He believed that the order of procedure in these cases should be first, Bottini's operation; then resection of the vas deferens; then castration, and lastly, prostatectomy by the various methods.

He was sorry Dr. Robert Newman had not published the results of his experience with his instrument. Personally, Dr. Meyer was an enthusiast over this instrument, and he hoped that we would get the same results here as abroad.

The Treatment of Urethral Stricture.¹—DR. J. BLAKE WHITE then read a paper on this subject.

DR. G. E. BREWER opened the discussion. He said he remembered ten years ago when he was present at a discussion on this same subject that one of the gentlemen present at the time said that he had passed through three periods in his life in the treatment of urethral strictures. In the first period he dilated a great deal and cut little; in the second period he both dilated and cut about the same; and in the third period he cut a great deal and dilated little. The speaker stated that his own experience, which, however, was small in comparison with that of the eminent gentleman who spoke that night, had been in the opposite direction; he had begun by cutting a great deal and dilating but little, but now he was apt to use dilation to a much greater extent, and to cut but little.

In regard to stricture of the anterior urethra, a number of them are best treated by dilation; yet there are some which are certainly best treated by urethrotomy. He recalled one case of stricture which had been cut to 34, with temporary relief of the symptoms, which rapidly recurred; the operation was repeated, the stricture being cut to 40; the symptoms again returning in a few weeks, with recurrence of the stricture, it was cut to 42, and was followed then by complete disappearance of the symptoms and of the stricture, which resulted in a permanent cure.

He thought that there was less liability of recurrence in strictures suitable for cutting, if the urethrotome were opened to the full caliber of the urethra and the cut made, than if the blade were opened to a point less than the full caliber, the cut made, and an attempt then made to complete the work by dilating with sounds.

He had met one class of cases in several instances where a gleet was kept up by what appeared to be a congenital narrowing of the urethral cal-

¹ Will be published in April.

iber at some point, which resisted dilation by sounds, and these cases he invariably cut.

He thought that we got a truer idea of the condition of the urethra if we avoided the use of cocain as far as practicable in examining for stricture. And he preferred the Otis urethrometer to the bougie à boule.

DR. SWINBURNE said that he had but few words to say on this matter. In the first place, he found himself using less and less instrumentation than formerly. The first thing that he always strives to do is to remove any urethra discharge that may be present, and especially to get rid of any germ-infection in the urethra before he attempts instrumentation.

In examining cases he finds the Otis urethrometer is a perfectly satisfactory instrument, especially when aided by the use of the bougie à boule and the olive-tipped bougies.

The speaker avoided the use of cocain where practicable, and he found that there were but few instances in which pain is caused if extreme gentleness is used.

He stated that his usual procedure now was to dilate, if possible; if the case does not get along well under this treatment, then it seemed to him that the case called for urethrotomy by means of the Otis instrument.

DR. F. TILDEN BROWN thought that if there was one point more than another in Dr. White's paper that appealed to him it was that emphasis given to the deceptive form of urethral lesion, which, from the small stream of urine passed and from its tendency to resist the introduction of all instruments, suggested at first a tight organic stricture; whereas, it was only a very sensitive inflammatory patch, with comparatively little stricture in its composition. When a whalebone guide had once been passed to the bladder, tunneled sounds of rapidly increasing caliber can be safely introduced upon it. The speaker thought that it was a lesion nearly always amenable to dilatation and local application. He thought that these very cases illustrated well the value of endoscopic examination as a routine preliminary, for here we would see at once a swollen, bleeding, and, perhaps, an ulcerated mucous membrane at the point of supposed stricture, and would have had the advantage of making a visual diagnosis before causing the patient unnecessary pain and using much useful time.

In considering the treatment of stricture of the anterior urethra he did not think we could do the subject justice without referring to the very great importance, in some of these cases, of a conjoined external or peritoneal and internal urethrotomy for urinary drainage, with avoidance of sepsis and the control of hemorrhage. Wherever the advantage to be derived from its performance is in question he thought this aid and safeguard should be employed. In such cases it curtails rather than lengthens the post-operative period. In many cases the tube might be removed at the end of forty-eight hours.

DR. FULLER congratulated Dr. White on his able paper. It all goes to show that we are more conservative in the treatment of urethral strictures than we were years ago. Probably not one-fourth as many strictures are cut now as formerly. The speaker remembered well a case that came to him three years ago with retention of urine caused by a stricture; a great many had attempted to pass an instrument into his bladder, but none had succeeded. For some reason the patient could not be operated upon then, so he tried to get into the bladder. At last he succeeded in passing through a filiform. He was then able to dilate it up to 15 or 16 French at that sitting, and sent the patient away to return shortly for operation. Six months later a man came to him who was sent by this same person, who said that Dr. Fuller had cured him by one treatment in his office; three or four months later another man appeared with the same story. From these reports it

appeared that the first man had felt himself cured by that one treatment. The speaker thought that he had received more credit from the patient than he perhaps deserved.

The speaker then mentioned another case of a man who was supposed to have a cancerous affection involving the perineum, which prevented him from sitting down. He could not get into the urethra through the mass. He cut into the mass, but could not do a radical operation by the perineum. He could not decide whether the case was one of chronic urinary infiltration or malignancy. A section of the growth was taken out for the pathologist. He then decided to do a suprapubic operation and establish a suprapubic fistula, and watch the case. Of course, if the disease was a malignant one, it would progress. He kept him in the hospital one month and then discharged him, wearing a suprapubic drainage-tube. At the end of about six months he came in and said that he had seen another doctor, who advised him to take out the tube he was wearing and let the wound heal up. He had followed his advice and the wound had healed. The man could now pass a good-sized instrument into his bladder, and was absolutely well, the perineal process having ended in complete resolution.

He thought that Dr. White might have brought up the question of resection of stricture.

DR. VALENTINE said that it was wrong to cut a stricture in your office. He leaves the retention catheter in place for forty-eight hours, and then he watches for temperature, which means infection. If no infection at the end of forty-eight hours, the catheter is removed, and he at once begins dilatation treatment. In event of infection at the end of forty-eight hours, he replaces the catheter and places the patient in bed, and, in many instances he has noticed a fall in temperature within a few hours after reestablishing bladder drainage.

The speaker thought that a good way to prevent infection was to wash out the bladder immediately after urethrotomy with a solution of nitrate of silver, 1-500, or 1-1000, according to the case.

DR. CHARLES H. CHETWOOD said that slight reference had been made to strictures of the deep urethra and that he could not share the views of those who performed internal urethrotomy for strictures of this region.

Speaking surgically, the most desirable condition to acquire and maintain is asepsis, and, failing in this, adequate drainage. In external urethrotomy drainage is obtained to perfection, besides the advantage of being able to incise the stricture upon the floor or upon the roof, to dissect out any nodular tissue and afford the bladder complete rest and drainage.

The objection raised to the period of confinement, he thought, hardly a sufficient one, as he had found that an average of ten days is all that is required in simple cases of external urethrotomy, which will not compare unfavorably with those cases of internal urethrotomy in which the *sonde à demeure* is employed.

DR. RAMON GUITERAS said that he had but few words to say. It was always advisable to place the urethra in antiseptic condition first, and at a subsequent visit to make instrumental examination. In regard to dilatation, the speaker thought that this should be performed in every case where it was possible to dilate. He thought that it was a great mistake to promise to cure a patient by dilatation. In regard to congenital strictures his experience had been that they were difficult ones to handle. In case we find it difficult to get by a stricture he advised the placing of the patient in bed and the giving of hot sitz baths, by which means we can generally get by them.

After operations for stricture we often note a great deal of hemorrhage.

In his hands, peroxid of hydrogen had worked well, and stops the hemorrhage.

DR. WHITE closed his part of the discussion by stating that his paper only considered the treatment of anterior strictures. He agreed with Dr. Chetwood that internal urethrotomy was not so good for deep strictures as the external operation. He also agreed perfectly with Dr. Brewer. The principal thing in the operative treatment of these strictures is to cut them thoroughly. He first stretches the urethra to within two millimeters of its fullest capacity, and then withdraws the knife and incises the stricture. He believed that if we do not take this precaution, but stretch the urethra to its fullest extent before cutting we run the risk of having the operation followed by curvature of the penis afterward.

In his experience cocain seemed to aggravate the stricture. Most operators used little syringes, but he used a large one and carried it well down, and so thoroughly overcame spasm which rendered thorough examination possible.

Further Studies on the Gonococcus (third series).—DR. HENRY HEIMAN read a paper with this title, in which the summary of his conclusions were as follows:

1. The gonococcus can be kept alive in certain culture media as long as eighty-two days.

2. The gonococcus can be transplanted practically indefinitely from one culture medium to another. The reader of the paper had succeeded in transplanting the gonococcus twenty-five times.

3. Fifteen cases of chronic urethritis were found to be entirely free from the gonococci as judged by cover-glass preparations and by cultures.

4. The statements of Straus, Pescione, and Eraud that the gonococci grows in the normal urethra is not satisfactorily proven yet.

5. Experiments in inoculating the eyes of new-born rabbits and new-born kittens gave negative results.

DR. IRA VAN GIESON said that the work of Dr. Heiman represented the kind of work that should be done, and that he considered it a scientific paper of the ideal kind. If more work of this nature was done, surgery would rest on a less empirical basis. Such work as this tends to arouse practical work in pathology and to advance science. He thought that the reader's conclusions were not unwarranted. The speaker referred to the importance of a thorough understanding of pathology in the treatment of strictures. He spoke of the injury that was often done by the surgeon's knife, as he had observed after death. He had seen incisions made into the corpus spongiosum one-quarter of an inch in depth, and he thought that if after operation the patient had curvature of the penis it would not do to tell him that it was due to the hemorrhage and might be absorbed; these results should not be.

In regard to the occurrence of gonococci in a normal urethra, the opinions expressed on this subject lead us into hopeless confusion.

When one investigates *post-mortem* conditions he is surprised at the conditions found. To him the pathology of strictures was an extremely interesting subject.

Editorial Notes.

DERMATOLOGICAL NOMENCLATURE.—In the endeavor to bring order out of confusion in the use of terms applied to cutaneous diseases, the JOURNAL will in future second the efforts of the American Dermatological Association, and will adopt the report of its Committee on Nomenclature as its standard. The only deviation from it will be in the tinea. Trichophytosis and favus will be used as heretofore. By conforming strictly in spelling, as well as terminology, with it our contributors will confer lasting favor upon the editors.

AMERICAN DERMATOLOGICAL ASSOCIATION.—The date of the annual meeting has been changed on account of conflict with that of the American Medical Association in Denver. On May 31st and June 1st the Dermatological Association will assemble at the Princeton Inn, Princeton, N. J. On June 2, the session will be held at the New York Academy of Medicine in connection with an exhibition of cases and photographs.

THE DEATH OF MR. ERNEST HART.—Mr. Hart died in London on January 7th. Our readers know him best as the editor of the *British Medical Journal*, a post which he has occupied for many years. Much of that paper's weight and influence in the medical world is the result of his efforts. He was attached to the staff of the *Lancet* before occupying the chair which he filled to his death. Beside his editorial labors, he found time for much writing, chiefly upon sanitary questions in Ireland and in India. His example, and in particular his breadth of view, may well be emulated by his fellows of the pen here and in his native land, where the lesson of Kipling's famous "Recessional"

"For frantic boast and foolish word,
Thy mercy on Thy people, Lord,"

appears not to have sunk very deep.

TWELFTH INTERNATIONAL CONGRESS OF HYGIENE AND DEMOGRAPHY.—This Congress will be inaugurated under royal patronage in Madrid on April 10, 1898, and will close on the 17th of the same month. An accessory of importance is an exhibition, prizes being offered for meritorious exhibits. The subjects for discussion in hygiene are: "Microbiology in Relation to Hygiene," "Prophylaxis of Transmissible Diseases," "Medical Climatology and Topography," "Urban Hygiene," "Hygiene of Alimentation," "Hygiene of Infancy and School Life," "Hygiene of Exercise and Work," "Technics of Demographic Statistics," "Statistical Results," "Dynamical Demography;" in demography, "Naval and Military Hygiene," "Veterinary Hygiene, Civil and Military," "Sanitary Engineering and Architecture." English is an official language. The registration fee is 25 pesetas

(\$5.00). The secretary-general is Dr. Amalio Gimeno, Ministry of the Interior, Madrid.

PHILADELPHIA MEDICAL JOURNAL.—Mr. Hart's transcription of Lincoln's phrase, "of the profession, for the profession, by the profession" applies well to our new contemporary, the first numbers of which justify the claims of its prospectus. It is owned and published by medical men, and is under the editorial charge of Dr. George M. Gould. This means, among other things, a rigid supervision of the advertising columns, and an exclusion of nostrums, the offering of which is little short of an insult to intelligent men. There are several new features, the most praiseworthy being systematic reviews of the best and latest literature. The low price (\$3.00) of subscription is a recommendation.

UNNA DERMATOLOGICAL PRIZE.—The prize offered for 1897 has not been awarded. In consequence, 600 marks (\$150) is to be given for the best essay on the subject of last year: "Whether, and to What Extent, the Specific Stains for Elastin Are Applicable in the Case of Elacin." Competition is open to everyone and the prize will be awarded by Professors Hoyer, Krause, and Stohr. Each essay must have a motto, the latter being a key to the author's name and address, and must reach Leopold Voss (Hohe Bleichen 34, Hamburg) by December 1, 1898. Unna gives (*Monatsh. f. Prakt. Derm.*, No. 1, 1898) some valuable hints to prospective competitors.

Skin Changes in Rheumatic Fever.—SINGER (*Wien. klin. Woch.*, 1897, No. 38) records seven cases of erythema multiforme and two of purpura rheumatica occurring during the course of acute rheumatism. He discusses the erythema at length, and states that it may assume the form of erythema gyratum, figuratum, and urticatum on the trunk or the extremities, that in more severe cases it may become hemorrhagic or nodose (*E. nodosum*), and that in rare instances vesicles may form. The extensor surfaces of the extremities are its favorite seats; it is often present, though less thickly, on the body or the flexor surfaces. Singer considers that erythema multiforme may be either symptomatic or idiopathic. The most common forms of the former are those accompanying pyemic processes, in the symptomatology of which these skin affections should be accorded a prominent place. Next in importance are the erythemata complicating rheumatic joint inflammations. The idiopathic form is mainly incident in the spring and autumn, and is characterized by fever, joint pains, and a relapsing course, and associated with tonsillitis and endocarditis. It thus shows so many points of similarity to articular rheumatism that it no doubt must be traced to a rheumatic cause in the majority of cases, although the joint symptoms may appear to be of subordinate importance. In many instances the eruptions betoken the skin localization of micro-organisms circulating in the blood; bacteriological investigations in erythema multiforme practically always show staphylococci and streptococci. Considering this and the frequency already mentioned of cutaneous eruptions in septicemia and pyemia, one is justified in regarding erythema multiforme as *par excellence* a septic skin disease; an exception is afforded by the rare cases of purely nervous erythema. From this conclusion and the undoubted relation between erythema multiforme and acute rheumatism, it follows that the latter is also to be regarded as, in a wide sense, a septic blood disease.—*British Medical Journal*.

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A CASE OF MONILETHRIX, WITH AN UNUSUAL DISTRIBUTION.

By T. CASPAR GILCHRIST, M.R.C.S. (Eng.).

Associate in Dermatology in the Johns Hopkins University and Dermatologist to the Johns Hopkins Hospital, Etc.

(From the Pathological Laboratory of the Johns Hopkins University.)

THIS very uncommon affection of the hair was first described by Walter Smith of Dublin, in 1879, who called it "a rare nodose condition of the hair." In his case the disease was practically limited to the scalp, and was of four-years' duration. The patient, who was a girl nineteen years of age, had previously had a good head of hair, but when she came under observation it had become thin over the whole scalp. Smith sums up his observations as follows: "(1) There was little tendency to partial fracture of the cuticle or brush-like splitting of the cortex. (2) Nodose hairs were very numerous. (3) When the hair was broken the fracture was usually clean and occurred through a constriction, never through a node. (4) The nodes were the darkest portion. (5) The nodules were very numerous and succeeded each other in regular order like beads on a necklace."

Numbers of other cases have been reported since the above, and nearly all of them have occurred in childhood or infancy, and most of them, Crocker thinks, are probably congenital. Some of McCall Anderson's cases were remarkable from the fact that fourteen out of twenty-seven individuals of a family in six generations had the disease. Sabouraud described seventeen cases in five generations.

The descriptions of the diseased hairs by the later observers

agree, in the main, with Walter Smith's account, and in all the cases the affection appears to have been limited to the scalp.

If the literature is to be relied upon the disease must either be very rare in the United States or else must have escaped recognition. We have found only a single instance of this disease reported in this country, *viz.*, one which was referred to by Dr. L. D. Bulkley at the International Medical Congress held in London in 1881. But disregarding any claim to rarity which it may possess our present case has seemed worthy of especial notice not only because it is the first one to be fully described in this country, but also because it

FIG. 1.



presents certain features which differ from those which have generally characterized the cases which have been already recorded.

The name "monilethrix," first suggested by Crocker for this affection, is the one now generally accepted, the previous terms having been practically discarded (*vide* bibliography). A more correct formation of the word, however, is "monilithrix," which we shall adopt.

History.—The patient is a young physician (in Baltimore), twenty-eight years of age, and well developed; he is about five feet

eight inches in height, and weighs about 160 pounds. His physique is of a high standard, his habits are particularly good, and his health is excellent. No history of any previous cutaneous affection either in himself or among his immediate relations could be obtained.

Previous History of the Disease.—The patient is quite sure that the present affection did not make its appearance up to the time when he began to wear trousers and gave up knickerbockers, which occurred at fifteen years of age; nor was the disease noticed for one or two years afterward. His attention was first directed to two bald patches on the anterior surface of both legs, while bathing at the seashore. This baldness had not been noticed the previous year when bathing, so that the date of the commencement of the affection may safely be put at about eleven years ago, *i. e.*, when the patient was seventeen years old.

The disease made its appearance as two perfectly symmetrical bald patches on the anterior surface of both legs, the anterior border of the tibia forming the inner margin of each patch, both of which were, according to the patient's statement, almost exactly alike in shape and size. They measured about 7.5 cm. (vertically) by 2.5 cm. (laterally), and were particularly well defined, because the patient's legs are markedly hairy. There was an entire absence of any subjective symptoms.

As time went on these two patches very gradually increased in size peripherally, but the outer margin advanced rather more rapidly than the inner border. The alopecia on the right leg also spread more rapidly than the patch on the left extremity.

Two years later (when the patient was nineteen) there appeared two other perfectly symmetrical patches on the antero-external surface of the lower portion of the middle thirds of both thighs. These areas were also similar in shape and size, and were of about the same extent as the original patches on the legs. The appearance of these later lesions was not accompanied by any symptoms. After a short time the alopecia began to extend peripherally and continued to grow for seven years (up to two years ago) when recovery began to take place very gradually on the patch on the right thigh, so that at the present time no baldness can be detected in this situation.

Soon after the detection of the lesions on the thighs, two more patches of alopecia made their appearance on the calf of each leg (lower half of the calf) and in this case again the diseased areas were of about the same size and shape and were unaccompanied by any symptoms.

Present Condition.—(October, 1897.) *Right leg.*—There is a

well-defined smooth patch, somewhat irregular in shape but for the most part inclined to be oval, measuring 20 cm. vertically, 7 cm. laterally, in its longest diameters, and situated on the anterior and outer surface of the leg. (Plate I.) The normal hair of this region is of a dark brown, fairly coarse, and about 2.5 cm. long, so that the area of alopecia stands out in marked contrast to the surrounding skin. The upper border is distant from the knee-cap about 15 cm., whereas its inner margin lies just inside and almost parallel with the anterior border of the tibia. The skin in the bald area is white, but not whiter than normal; it is very smooth and almost velvety to the touch, and there is no atrophy, induration, or scaling. The openings of the hair-follicles could still be detected, and there was some evidence of keratosis pilaris. In fact, the skin appears to present all the features of normal skin with the exception of the appearance of baldness, the presence of numerous diseased hairs, and the slight keratosis pilaris. Scattered over the surface of the patch are to be found a few very fine hairs (lanugo) which come out on very slight traction, a number of stumps, varying in length, of hairs which have been broken off, and a fairly large number of scattered, long, nodular hairs, which easily break, are often bent at various angles, and are only loosely attached. The central region which forms the greater portion of the patch is quite devoid of hair, but, as was mentioned before, the follicular openings can still be detected. It is generally near the periphery of the patch that one sees large numbers of hairs in various stages of nodosity. The most diseased hairs are attached so loosely that they almost fall out. Even beyond the margin of the patch one can discern here and there hairs which are just beginning to become nodular. The condition of the hair-follicles—even those of the moniliform hairs—was normal.

A second patch on this leg is situated over the middle portion of the calf, and measures 7 cm. by 7 cm., although it is now rather triangular in shape, with the base upward. The patch is not exactly bald, but the hair is very thinly scattered and a fair number of nodular hairs could be picked out. The patient says the hair is returning and that the alopecia is not nearly so pronounced as it was. Still a third bald spot, measuring about 3 cm. by 3 cm., was found on this leg just above the internal malleolus. The baldness was not so apparent as in the other regions because the hair, normally, is not very marked in this region.

Right Thigh.—As has already been said, the area of alopecia which appeared on the right thigh is not now observable and it was only

after careful examination that a few slightly diseased hairs could be found.

Left Leg.—On the anterior and outer surface of the left leg is a well-defined bald region, 21 cm. long by 8 cm. broad, which practically presents all the features which have been already described on the corresponding portion of the right leg, except that the left patch has a few more nodular hairs scattered over its surface. (Plate I.) The left calf also presents an area of alopecia similar in situation to that already described on the right calf, but larger, measuring 16 x 8.5 cm. in its longest diameters. The patch is well defined and is somewhat triangular in shape, with the base of the triangle directed upward. The inner margin encroaches to within 2 cm. of the inner border of the anterior patch, and since the two margins are almost parallel a narrow belt of hairy skin extends vertically between the two areas of alopecia. The patch on the calf is markedly devoid of hair and presents features similar to those already described on the right leg.

Left Thigh.—On the antero-external surface of the middle region of the thigh is a fairly well-defined area which is now only partially bald, since recovery has been going on for some time. A number of slightly affected hairs can still be detected.

The Examination of the Diseased Hairs.—As has already been described, many of the hairs, especially those on the legs, appeared bent or broken off, and when drawn upon were found to be but loosely attached. As the light fell on the affected hairs they presented an irregular, beaded appearance, light and dark intervals alternating, whereas others appeared to have a spiral arrangement. On microscopic examination these hairs presented a well-marked nodular appearance with no signs such as characterize trichorrhexis nodosa, and the diagnosis of *monilithrix* was, therefore, made.

All the patches were then carefully searched with a small magnifier for the abnormal hairs, which were examined microscopically. The best examples of the nodular hairs were found abundant only upon the anterior surface of the legs, and some of them were of a lanugo-like character, being of a lighter color and thinner than the others. Figs. 1 and 2 represent the terminal thirds of one hair, Fig. 1 showing the root and portion of the shaft, whereas Fig. 2 presents the free end. (The drawings were made, as seen, with a low-power Zeiss microscope, Obj. D, eye-piece 4.) The spindle-shaped nodes are well seen; they are fairly equidistant along the shaft, and extend even into the hair-follicles. As a rule, the constriction or internodal portion is generally about equal transversely to one-

FIG. 2.



PLATE II. HAIRS FROM A CASE OF MONILITHRIX ON BOTH LEGS.

Figs. 1 and 2 are the terminal thirds of a nodose hair.

Fig. 3 is the intrafollicular portion of a hair, showing that the constrictions extend down to the root.

In Fig. 4 the nodes are seen to be shorter.

Fig. 5 represents one of the twisted hairs.

In Figs. 6 and 10 are represented transverse fractures, which are only cortical.

Fig. 7 shows the splitting of the free end of a hair, but the usual appearance is represented in Fig. 11.

Fibrous fracture of the shaft was found in one instance—Fig. 8.

Fig. 9 represents a lateral fracture of the shaft.

Fig. 12 represents the appearance of the intrafollicular portion of the shaft after treatment with liquor potassæ.

half the transverse diameter of the node. The pigment is scattered throughout the hair, granules being arranged in short streaks and unevenly distributed. In many hairs the alternation of swelling and thinning is not at all pronounced, and between the two extremes many gradations were observed. There appears to be more pigment present in all the constricted portions, so that it would seem as though as much pigment was contained in the internodal portion as in a corresponding portion of a node, but that on account of the constriction it was crowded into a smaller space. The cuticle of the hair is thicker at the constrictions, and is everywhere intact, with one exception, where a small splintering had occurred. (Fig. 9.)

No cells could be detected in the axis of the nodules. The free end of the hair was somewhat bulbous and showed a slight tendency to fringe. Figs. 3 and 4 also show the same moniliform appearance, but in Fig. 3 two constrictions are shown in the follicular region of the hair; and in Fig. 4 the nodes are shorter. Around the root portion of some of the hairs there was noticed a peculiar condition (Figs. 3 and 12) as if a fibrous band of varying thickness had wound itself irregularly round the root of the hair or had branched and formed a course network.

Some of the hairs presented a very tortuous and even twisted appearance. (Fig. 5.) In these cases the moniliform character was not so marked, neither were the pigment granules so profuse, although they were scattered in streaks throughout the whole shaft of the hair.

In one hair (Fig. 6) there was noticed a transverse crack, somewhat irregular, extending through the cuticle only, but situated at the nodal portion. Other examples of this condition were found only at the internodal portion. Fig. 10 represents the appearance as seen under the high power (Zeiss, Obj. D, eye-piece 4). The free ends of the diseased hairs varied slightly, the majority showing a fringed extremity (Fig. 11), but in one hair a splitting into two portions was found (Fig. 7). Again, in a number of instances, fibrous fracture of the shaft of the hair was seen at the internodal portion, but appeared to be only very slight. Fig. 8 represents such a fracture, but, although it occurred at a constriction, the hair showed only a slight moniliform character.

All the stumps of hairs and the hairs which were fractured artificially, were found to have been broken at the internodal portion of the shaft.

In one instance, also, there was seen a lateral partial fracture of the shaft of the hair (Fig. 9). In the moniliform hairs the cuticle is

thicker at the constrictions than at the nodes. All gradations of the nodular formations could be followed out on a large number of the hairs. The diseased hairs varied very much in length, and the short ones presented the most pronounced nodosities.

In the majority of the affected hairs the hair-bulbs present a wasted appearance. No trace of air was found in the nodes, nor was there any evidence of any fungus being present.

Pathology.—A piece of skin was cut out from the upper margin of the patch on the anterior surface of the right leg. Three slightly nodular hairs were included in the excised portion. The sections showed the following changes:

The epidermis in the area between the hairs appeared to be thinner than normal. The section through one of the hairs and its follicle presented marked pathological changes. The mouth of the hair-follicle was almost blocked with a firm, compact mass, which presented a sharp line of demarcation from the mucous layer of the epidermis, with which it lay in contact. This marked hyperkeratosis was not observed in the two other hair-follicles included in the sections. The fusiform swellings could be traced down to the lower fourth of the hair-shaft, and corresponding to these there were constrictions in the wall of the hair-follicle. The sebaceous gland attached to this follicle was atrophied and opened into the follicle much above the lowest constriction on the hair-shaft. No change could be observed in the hair-papilla or in the erector pili muscle.

In the region of the corium surrounding this hair-follicle there were present large numbers of connective-tissue and lymphoid cells, the latter being massed round the vessels. The other portion of the corium, even round the other hair-follicles, did not exhibit any marked increase in the number of cells.

In the two other hair-follicles, included in the sections, the sebaceous glands were also atrophied, but not so markedly as in the follicle just described.

The sweat-glands throughout the sections (78) were practically normal.

Bacteriology.—We thought it would be interesting to see if it were possible to demonstrate the presence of Hodara's bacillus, which has now been proved to be the cause of trichorrhesis nodosa. Following the procedure suggested by this author, a number of the affected hairs were dropped into absolute alcohol, in which they were allowed to remain for six days; they were then removed and placed on sterilized slant agar (two tubes). There was no growth of any organism even after nine days. According to Hodara,

whose observations have been confirmed by E. Spiegler, if the bacillus of trichorrhexis nodosa had been present it would have begun to grow in twenty-four hours and could easily have been observed. Affected hairs, stained also according to Hodara's plan, did not reveal the presence of any bacillus. It is, therefore, permissible to conclude that the special bacillus of trichorrhexis nodosa was not present in this affection.

Dr. Lewellys Barker tested the areas of alopecia for any alteration of sensibility, and found that the conditions in this respect were practically normal.

The points of interest in this case may, therefore, be summed up as follows:

1. The perfectly healthy condition of the patient, whose habits are particularly cleanly (bath every morning), and whose physique and intelligence are much above the overage.
2. The disease commenced at about seventeen years of age, which is much later than in the majority of the previously recorded cases. Crocker says that most cases are probably congenital.
3. The perfectly symmetrical distribution, which is something remarkable. No case has thus far been recorded which presented any such symmetry on other regions than the scalp.
4. The presence of only a slight keratosis pilaris (its mildness being probably due to the daily bath).
5. Fracture of the hair was either clean or fibrous, the latter implicating only the cuticle.
6. When traction was made on the hairs the breakage occurred at the constriction (never at the node) and left a brush-like ending.
7. There appeared to be relatively more pigment at the constrictions than in the nodes. This observation appears to be directly contrary to those of previous writers, if we except Lesser's case, in which the lighter color of the nodules was due to the presence of air.
8. The nodes are numerous and are very regular, but are not always of the same length.
9. The absence of evidence of contagion and of any history of any one in the same family having had a similar affection.
10. There was evidence of spontaneous cure, for the hair all returned on the right thigh after the baldness had existed for almost nine years. No history of any spontaneous cure has been recorded before.
11. There were no signs of either baldness or even thinning of the hair of the scalp.

12. No cause for the disease could be discovered. It was proved that the bacillus of trichorrhexis nodosa (Hodara's) was not present.

With reference to the etiology of this affection all observers appear to agree in the view that this condition of the hair is an anomaly of development or the result of defective growth. Both Virchow and Kaposi believed that the disease was due to a periodical aplasia of the hair. W. Smith expresses the opinion that the affection is a curious freak of perverted nutrition, a periodic alternation of activity, and of sluggishness, and that the origin is evidently intrafollicular. That there is some foundation for regarding heredity as a predisposing cause is proved by the cases recorded by McCall Anderson (14 cases in five generations), by Sabouraud (17 cases in five generations), and by Hallopeau and Lefèvre (5 cases in two generations). No actual cause has been discovered by any observer, although both Sabouraud and Unna have given rather doubtful histories pointing to nervous shock as the probable cause. Lesser believes that the accompanying keratosis follicularis has something to do with the cause of the abnormality. Some observers have shown that the disease has been known to extend down the hair-shaft almost to the papilla. It appears to be generally accepted that the disease is not due to contagion. Finally, the general opinion is that the contracted or internodal portion is pathological, while the nodes represent the normal condition.

So far as our observations go we have arrived at the following conclusions: Clinically, pathologically, and bacteriologically monilithrix is a disease quite distinct from trichorrhexis nodosa since the bacillus (Hodara's), whose presence and growth is the cause of the latter disease, is absent in the former.

Monilithrix has its origin in the hair-follicle very near to the papilla, so that it begins well below the opening of the sebaceous gland into the follicle. Corresponding to the contracted portions in the hair-shaft there are strictures of the follicle itself. The region of the corium round the affected follicle shows marked chronic pathological changes.

It appears that in our case, at least, the affection is not congenital, nor is it associated with any disturbance of the general health or of the nervous system. The process appears to originate in the hair-follicle itself, while the hair-shaft becomes secondarily affected, this change being accompanied by pathological conditions in the corium.

The hyperkeratosis follicularis should probably be looked upon

AUTHOR.	AGE OF PATIENT.	DISTRIBUTION OF THE DISEASE.	REMARKS.
Abraham	2 years; girl	Scalp	Very little hair at birth; follicular inflammation.
Anderson, W.			No age, sex, or distribution given.
Anderson, McCall			
Case 1	3½ years; boy	Scalp	} All congenital, and were examined by the recorder.
Case 2	4½ years; girl (sister)	Scalp	
Case 3	1½ years; boy (brother)	Scalp	
Cases 4 to 14	5 males, 6 females	All on scalp	History obtained from the patients.
Arnozan		Scalp	
Beatty and Scott	7 years; boy	Scalp and eyebrows	Younger brother of Smith's case.
Breda	Boy	Scalp	Epileptic.
Bulkley, L.	6 years; boy	Scalp	Lichen pilaris was present.
Bury	7 years; boy	Scalp	Congenital.
Fox, Colcott	5 years; girl	Scalp	Congenital.
			Referred, also, to a girl and her mother, related to Dr. Thin's case.
Gilchrist, T. C.	27 years; man	Lower extremities	Commenced when seventeen years of age; scalp unaffected; family history negative.
Galloway, J.	infant; girl	Scalp	Sister to Payne's cases.
Hallopeau & Lefèvre			
Case 1	29 months; boy	} All on scalp	
Case 2	49 years; man (father)		
Case 3	Female (mother of 2)		
Case 4	Female (sister of 2)		
Case 5	Cousin of 2		
Jeanselme, G.			
Case 1	2½ years; boy	Scalp	History of two other infants of same parents having had a similar disease.
Case 2	2½ months; boy	Scalp	
Kaposi	Two cases	No details	
Lesser	4½ years; girl	Scalp	Born bald; appearances like keratosis pilaris.
Luce	8 years; girl	Scalp	Born bald; nodular hair folded on itself in the hair-follicle.
Payne. Case 1	1 year; boy	Scalp	} Rickets.
Case 2	2 years; boy	Scalp	
Sabouraud			
Case 1	4 years; girl	} All on the scalp	Cases 1 to 4 were seen by the author. In cases 5 to 16 the history was obtained from the relatives.
Case 2	2 years; girl		
Case 3	16 years; girl		
Case 4	18 years; boy		
Cases 5 to 16	6 males, 6 females		
Smith, W. Case 1	19 years; girl	Scalp	Began at fifteen years of age; one nodular hair on pubes.
Case 2	7 years; boy	Scalp and eyebrows	
(Living's case)	12 years; girl	Scalp	
Thin, G.	4 years; girl	Scalp	
Unna	Young lady	Scalp	Like alopecia areata.
Vidal. Case 1	4 years	Scalp	Sebaceous system badly developed.
Case 2	10 years	Scalp	

also as only a secondary result, since it occurred only slightly in the other hair-follicles. Whether the atrophy of the sebaceous gland is primary or secondary we cannot say.

By exclusion, therefore, it is possible that the affection is tropho-neurotic in origin, inasmuch as it made its appearance in such a perfectly symmetrical manner, and no other cause could be found.

We have appended a list of all the previous cases—sixty in number—which we found in the literature. It is interesting to note that in all of these except one, the affection was practically limited to the scalp. In one case (W. Smith's) a few nodular hairs were found in the axilla and only one pubic hair was affected. In our case, which now forms the sixty-first on record, only the lower extremities were attacked. Of the 61 patients, 28 were females and 26 males; in 7 cases the sex is not given. It is a very curious fact that in Anderson's cases, 7 of the patients were males and 7 were females, in six generations, and in Sabouraud's cases the distribution was nearly equal. This would go to show that sex does not have much bearing on the etiology.

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A CASE OF IMPETIGO HERPETIFORMIS (HEBRA) IN THE MALE.

By HENRY H. WHITEHOUSE, M.D.,
New York.

THIS disease is one of the rarest of all skin affections, there being less than twenty-five cases recorded since it was first studied and described by Hebra in 1872. Over two-thirds of this number were observed in Vienna, a few in France and Germany, and two or three in this country. Not all of these, however, are believed to be true examples of the disease, some having been regarded by critics as dermatitis herpetiformis, and others as pemphigus; this is true of two of the cases reported from this country. Of the entire number of authentic cases there have been but two, to my knowledge, observed in the male sex, one of Kaposi's, and the other Dubreuilh's; the remainder, almost without exception, occurred in pregnant or parturient women.

It is not my intention to enter into a discussion upon the subject of impetigo herpetiformis, or to review the literature of the disease. This was done in a most able manner a few years ago by Dubreuilh,¹ who made an exhaustive and critical analysis of the twenty odd cases reported up to that time. Two years ago,² while writing upon the subject, the present writer also gave a *résumé* of the literature to date, and, therefore, reference will be made here only to such of the

¹ *Annales de dermatologie et de syphiligraphie*, p. 353, 1892.

² "Twentieth-Century Practice of Medicine," vol. v., p. 425, 1896.

literature as may afford material for comparison with the following narrative:

The patient, P. J. M., was a native of this country, thirty-nine years of age, a widower with three children, all of whom are living and free from skin eruptions. He first came under my observation on August 2, 1893, and at that time he weighed 150 pounds. He stated that he weighed over 200 pounds ten years previously, and attributed his reduced condition to heavy drinking during that period; he stopped drinking in May, three months before I saw him. At the time of observation he presented quite an emaciated appearance, with sunken cheeks and prominent staring eyes, and he suffered from a harrassing cough which had been present several months. He was weak and extremely shaky, but careful examination of the chest failed to disclose any pulmonary trouble. He gave a history of having had eczema off and on for seventeen years, the disease beginning on the shins and extending at times above the knees, but he would often have extended periods of freedom.

The present eruption was only seven weeks in duration, but the attack was more severe than any he had previously experienced. To all appearances he was suffering from a very severe universal eczema, and this was the diagnosis made at the time. It was distinctly of the erythematous papular type, with very marked redness and infiltration of the skin, and considerable edematous swelling. On the trunk the scaling was abundant and furfuraceous in character; in the flexures there was moisture with adherent dark-colored crusts. The hands and feet were intensely swollen, the lower legs were edematous, and the skin was markedly livid from blood stasis. The palms and soles were likewise affected. The eruption covered the entire head with the exception of a small area in the center of each cheek. The eyelids were much swollen, very red, and covered with dry scales, and the ears were affected in the same manner; the eruption extended over the forehead and through the scalp. The hair had largely fallen from the scalp and the little that remained was closely matted by a drying serous exudate. The patient complained of intense burning and itching. The urine was examined at this time, and it had a specific gravity of 1025, was acid, contained no albumen or sugar, and the sediment was made up largely of crystals of sodium urate.

The patient improved somewhat under alkalin mixtures and a two-per-cent. saliclic acid and zinc ointment applied locally, but on August 16th, two weeks after coming under observation, he had a severe chill followed by a rise of temperature. The next day

groups of small pustules were noticed on the abdomen and lower limbs, especially about the ankles. I thought nothing of this at the time, supposing the pustules were due to the extreme heat, or possibly were an effect of the salicylic acid applied to the skin.

He improved immediately under a modified Startin's mixture of sulphate of magnesia, iron and diluted sulphuric acid, with two grains of quinin before the meals, and a four-per-cent. resorcin ointment applied to the skin. Five days later, however, he experienced another chill, followed by fever and a similar outbreak of pustules; these dried up and became crusted as before, and very little attention was paid to them. He went on in this indefinite way, having chills at irregular intervals, followed by groups of pustules, the general eruption steadily getting worse in spite of careful treatment, until the end of October, when his condition was so bad that he was confined to bed.

The eruption was now absolutely universal and presented many features of a pityriasis rubra. The entire cutaneous surface was intensely inflamed and in a state of continual exfoliation, the scalp was thickly crusted and entirely denuded of hair, and with one or two exceptions, the nails had been shed; he was very weak and extremely emaciated. With the exception of the suppuration about the nails, incident to the process of shedding, there was no distinct evidence of pustulation at this time. Under the influence of cod-liver oil and general tonic treatment, with antiseptic and protective local measures, the patient's condition soon began to improve, however, and the improvement was practically uninterrupted until the middle of December. During this time he gained considerable flesh and much of his former strength and vigor, and the condition of the skin improved in proportion.

The eruption had almost entirely disappeared from the trunk and head, and there was a growth of fine new hair all over the scalp; the forearms and hands, legs, and feet were the only regions where the disease was active. This period of well-being, nevertheless, was of very short duration, for early in January, 1894, his general health began to fail again and the skin eruption became very much aggravated. It never again became universal, however, but soon took on the characters of an impetigo herpetiformis. The eczematous element slowly disappeared and the eruption was marked by successive outbreaks of tiny pustules, none of them larger than a pin's head, developing in groups, which dried in the center with the formation of dirty brownish crusts and enlarged at the periphery by the development of new pustules.

This change in the character of the eruption was first fully impressed upon my mind when I visited the patient on January 22d. On this date the soles, dorsum of the feet, lower third of the legs, backs of the hands, extending half-way up the forearms, presented a most peculiar and picturesque appearance, one which I had never seen before, nor remember having read of. The eruption was most perfect upon the soles, and it is to be regretted that the photographs which were subsequently taken could not have been gotten at this time. I cannot do better in describing this condition than to compare it to an exquisite piece of marquetry. The ground-work was a smooth, shining, bright red, and dry surface, and this was inlaid with most graceful curves and scrolls, in very narrow and regular yellowish-white lines. These streaks were on the average about one-sixteenth of an inch in width, and it was only by passing the hand lightly over the surface that one could appreciate that they were slightly elevated above the skin.

To the touch the surface felt smooth, tense, dry, and hot. This condition extended in a more imperfect manner around the hollow of the foot, up the inner side onto the dorsum, around the ankles and one-third the distance up the leg. Precisely the same peculiar development existed upon the backs of the hands, around the wrists, and halfway up the forearms. By subsequent observation I was able to ascertain that these pustular streaks were produced by the coalescence of numerous small pustules which appeared in more or less circular groups; these circles in turn coalesced with those of adjacent groups, and by a process of involution from the center there resulted this distinctly gyrate configuration.

Besides this rather unique arrangement of the pustules in the localities just referred to, there developed from time to time over the thighs, trunk, arms, and face, groups of very small pustules upon an erythematous base. These would dry up in a few days with the formation of brownish crusts, and at the same time fresh pustules developed at the periphery. In this way rounded patches were formed with dry, dirty-looking crusts in the center, surrounded by one or more rows of small pustules.

On June 9th, when the patient entered the Skin and Cancer Hospital, the condition and distribution of the eruption was as follows:

On the lower legs and feet, the forearms and backs of the hands, the patches had become confluent and the surface was covered with thick brownish crusts, which emitted an extremely nauseous odor. The toes were bathed in pus, the toe-nails had all been shed, and on the soles and ankles the peculiar gyrate markings, already alluded

to, were imperfectly manifest. Here and there, where the crusts had fallen off, a smooth, moist, very red surface was revealed, and in places groups of very small pustules had developed upon this thin new skin; in the more aggravated localities the removal of the crusts would reveal a very sore and excoriated surface, but true ulceration never occurred.

The calves were less involved than the fronts of the legs, and here the serpiginous character of the eruption was clearly apparent. The advancing border was distinctly inflammatory and crusted, and numerous small new pustules were to be seen along the periphery. On the lower third of the left thigh anteriorly was a well-defined, irregularly outlined patch about eight inches in diameter, covered with soft greenish crusts, and encircled by small firm pustules of varying size. On the inner surface of the right thigh were a number of well-defined, raised, red-crusts patches, varying in size from a five-cent piece to a half-dollar, presenting the same character of crusting and pustule formation as just described. There were two or three small groups of pustules seated on an erythematous base, and located on the inner side of the right knee, which presented many of the characteristics of a zoster.

The description already given for the lower legs and feet would apply very nearly to the condition seen on the forearms and backs of the hands. As in the former instance, the flexor surfaces were less involved than the extensors, though with the exception of a small patch on the palmar surface of the left index-finger near the base, both palms were absolutely free. The nails, too, with the exception of that of the left index-finger, had all been thrown off. This inflammation about the nails of both the fingers and toes was a pretty constant feature throughout the course of the disease; in the beginning of the process the condition very closely resembled a run-around.

The eruption on the trunk at this time was only moderately developed, and consisted of not more than a half-dozen patches located over the sternum, on the sides of the abdomen, and over the scapulæ; they were of about the same size and character as those on the inner surface of the right thigh. There was one small crusted patch surrounded by pustules, near the center of the left cheek; the head was otherwise unaffected. The mucous membranes were free, as were also the genital regions. The subjective symptoms were a burning pain, soreness and tension in the affected parts; itching was not a prominent symptom. The urine was acid, with a specific gravity of 1015, and contained a trace of albumen.

Four days after admission to the hospital photographs were taken, which are here reproduced, and they show quite clearly the condition as it existed on the arms, hands, and soles.

The subsequent history of the case, covering a period of over seven months, from June 9, 1894, to the time of the patient's death

FIG. 3.



on January 21, 1895, did not differ materially from that already recorded. Though there were periods of improvement in the patient's general condition, as also in the eruption, the disease slowly progressed, each new outbreak of pustules being preceded by chills and a slight rise of temperature. On October 6, 1894, he was seen by Dr. A. Jacobi in consultation, and a complicating tubercular pleuritis was diagnosed. A severe and intractable diarrhea set in on November 20th, which continued in a more or less aggravated form to the end; as many as sixteen movements were recorded in a single day. The patient went into a state of coma four days prior to his death,

and he did not again regain consciousness though he passed once or twice into a state of delirium.

In addition to the localities already named, the eruption toward the last had extended up the thighs, over the gluteal region, and covered the greater part of the lumbar region. The abdomen was

FIG. 4.



also largely covered, and there was a patch, eight by fourteen inches, on the left side of the thorax. Both palms had also become uniformly affected, and numerous groups of pustules had developed through the scalp.

The temperature throughout the course of the disease was distinctly of a remittent type, with a daily morning remission and even-

ing exacerbation; it was never very high, however, the highest evening temperature recorded being 102.4° F. The average evening temperature was 100.8° F.; forty-five minutes before death there was a sudden rise to 104.2° F.

Hebra's original description of impetigo herpetiformis, although based on only five cases—the first of this affection ever recorded—differs but little from the foregoing narrative. It will be remembered that these first five cases were all in pregnant or parturient women, four of whom died in the first attack, the fifth dying a short time after in the course of a relapse.

Hebra¹ said the eruption was one of pustules, developing as such, and characterized by their grouping and tendency to centrifugal extension. In almost every instance the primary eruption appeared on the inner surfaces of the thighs in the form of pustules the size of a pin's head, isolated or forming groups the size of a kreutzer, which enlarged excentrically by the successive development of pustules in the form of circles. In a few days the groups increase in number and dimension; fresh isolated pustules make their appearance; the circles enlarge, so that, little by little, the thighs, abdomen, upper and lower extremities, feet and hands, and finally the neck, face, and scalp become covered with groups of pustules. The pustules situated at the center of the groups disappear, drying into brownish crusts, while at the circumference new pustules filled with yellow pus are constantly developing. The process is analogous to that in herpes iris, except that vesicles are never present, but always pustules from the beginning. The eruption does not follow an acute course, but becomes continuous by the appearance of successive crops of pustules. It is accompanied by intense fever, with dryness of the tongue and profound prostration.

He also mentions certain variations that may occur in the course of the disease. In three of the patients the pustular outbreaks succeeded one another with more or less intensity up to the time of death, while in the other two the groups and circles of pustules dried up, and after the falling of the crusts the skin appeared healthy, though intensely pigmented. In some patients the pustules do not completely dry up, but the underlying epidermis remains soft and is covered with a yellow, pulpy, fetid layer which, particularly in the articular folds, conceals a red and distinctly eczematous surface. There is never ulceration, but sometimes an eczematous condition persists, or a coating is formed of blood, pus, epidermis, and fat, which dry into crusts of variable color under which the

¹ *Wiener klinische Wochenschrift*, No. 48, 1872.

epidermis is reformed. The first outbreak of pustules, as well as those which follow, is preceded by chills which are immediately succeeded by symptoms of a mild fever. At the end of some days the fever diminishes and may even cease altogether. The alvine discharges are generally augmented and at times contain blood. The urine is always high colored, acid, contains some pus globules, excess of urea, but no albumen. In one of the cases lesions of the same character as those on the skin affected the tongue.

The very close resemblance between these two conditions must certainly be apparent to the most casual observer, and it seems to me all the more remarkable when we consider the small number of observations upon which this description of Hebra's was based. The eruption itself, both in its mode of development and subsequent course, differs in no way from that in my case, the only deviation being in its manner of inception. The eczematous condition which existed so long before the true character of the eruption was manifest was not a feature in any of the cases heretofore recorded, though Kaposi's¹ male case began as a severe intertrigo and eczema of the scrotum, and, later in the course of the disease, an erythema and urticaria developed. This case was a young man of twenty years, who died of the disease in twenty-one days.

The primary location of the eruption in all the recorded cases was on the inner surfaces of the thighs or in the genital region, but in my case these regions were affected later in the disease; I do not think, however, this one fact should militate against the diagnosis. The peculiar conformation of the pustules on the soles I consider as unique in this case, though a linear arrangement of the pustules was recorded in several of Kaposi's cases. Precisely the same condition of the nails present in my case existed in three of Kaposi's cases, the pustules forming around the edges, producing a condition analogous to a run-around and resulting in a complete shedding of the nail. The hair in two of these cases was also lost.

The second male case, that of Dubreuilh,² was a patient fifty-three years of age, who was an inveterate drinker, having imbibed two or three liters of wine and seven to eight glasses of whisky daily for twenty-three years prior to the development of the eruption. The disease in this case began in the genital region, and he succumbed in one month after a persistent diarrhea.

The two affections which have so often been confounded with this disease are dermatitis herpetiformis and pemphigus. In every case

¹ *Archiv f. Dermatologie und Syphilis*, p. 280, 1887.

² *Annales de dermatologie et de syphiligraphie*, vol. iii, p. 374, 1892.

of dermatitis herpetiformis, at some period in its course, multiform lesions are manifest, at one time papules or erythematous areas, at another time vesicles, vesico-pustules, pustules, or bullæ; a fatal termination is also a very rare occurrence. At no time in the history of this case was there a vesicle to be seen, the lesions being distinctly pustular *ab initio*. The severe character of the disease, with profound constitutional disturbance and prostration and ultimate death, were all foreign to dermatitis herpetiformis.

The absence of bullæ throughout the entire course of the disease would preclude the diagnosis of pemphigus.

THE TREATMENT OF URETHRAL STRICTURE.¹

By JOHN BLAKE WHITE, M.D.,
New York.

THE common site of organic strictures about the male urethra, all surgeons agree, is found to be along the pendulous urethra. There exists some difference of opinion as to the exact locality in which the lesion most frequently occurs, and the variety of views expressed on this subject may be accounted for, as Taylor² has remarked, to the motility of the stricture itself, in addition to a certain degree of elongation to which the penis may be subjected in the ordinary process of examination.

In the deep urethra the occurrence of stricture partakes rather of the spasmodic type, often traceable to some anterior irritation dependent upon contractions of greater or less degree having their seat either at the orifice or along the pendulous portion of the canal.

The existence of such reduced caliber is not always an easy matter to determine, and the attempt to ascertain this condition, even by those accustomed to conduct such expert examinations, may result in perplexity.

To establish deviations from a normal caliber some fixed standard of capacity must be determined upon, so that an accurate computation as to size can be made.

The diagnosis, therefore, of a stricture becomes a matter of ordinary comparison with that accepted standard already determined, but a uniform rule cannot be arbitrarily fixed which will unfailingly apply in all cases without modification in certain particular instances.

¹ Read before the Genito-Urinary Section of the New York Academy of Medicine, December 14, 1897.

² "Venereal Diseases."

An attempt to establish this standard early attracted the attention of Dr. Otis, who, for many years successfully applied a correlative scale in the diagnosis and treatment of all cases of urethral strictures.

Though the rules laid down with such definite precision by Dr. Otis have been found too extreme to apply to every case, the practical point maintained by him is a valuable guide to-day in determining the morbid condition of a urethra affected with stricture.

With many others, I recognize that the correlative scale referred to may prove not only a fallacious but an unsafe guide, in certain instances, for determining the necessary extent of operative procedures, though I assent to its eminent value for diagnostic purposes.

An organ having a circumference of three inches should admit of the passage of a 30 F. sound, but if a lessened caliber of 10 F. is ascertained, due to a contraction situated in the penile portion of the urethra, which is permanent and not dilatable, internal urethrotomy becomes necessary—and if the dilating urethrotome is selected for the operation instead of raising the scale to 30 with division, it would be advisable not to exceed 24, 26, or 28, and after incising the stricture proceed with gradual dilatation to the highest point desired.

This procedure lessens the danger of cutting through the urethra into the corpora cavernosa with consequences detrimental to the integrity of the organ. Although certain characteristic symptoms suggest the presence of stricture, they should not be considered final without a further systematic instrumental investigation, which alone can reveal the true nature of any suspected lesion. It is hardly necessary to refer to the seemingly impermeable deep contractions so often complicating deviations from the normal caliber of the anterior urethra which are purely of a spasmodic nature and are so easily overcome by intelligent treatment.

Here in point is one of the many evidences of disturbance originated by slight lesions affecting the urethra not unseldom found to be of far greater importance than the original trouble would ordinarily lead us to expect.

To determine the permanent or spasmodic character of an obstruction in the deep urethra it is essentially necessary that every prefatory contraction along the anterior portion of the canal be first removed. I have had occasion to note quite a number of instances where a perineal section appeared urgent, but having reason to doubt the genuineness of the deep obstruction, an enlargement of the meatus alone or associated with internal urethrotomy proved to be

all that was required to facilitate the passage of a large sound. I submit the following brief case to reinforce these remarks:

P. M., about forty years of age, in otherwise good physical condition, had more or less difficulty on micturition. There was a frequent desire to void water—always accompanied by vesical and urethral tenesmus—pain at the meatus, referred also to the suprapubic region and scrotum. Urine escaped in drops and a leakage continued after micturition. A gleet discharge proved a source of constant annoyance. Headache, vertigo, and lumbar uneasiness aggravated the patient's distress—and some time before he was referred to me he had suffered from retention of urine which was relieved by catheterization.

An examination of the penis revealed a circumference of three and three-quarter inches—the meatus admitting a bougie à boule of 20 F. With cocain anesthesia a 20 F. sound was passed to the bulbo-membranous junction where its further progress was arrested, and, caused by its presence, severe pain. Attempts to pass smaller sounds were unsuccessful, and finally, after careful and patient coaxing a filiform bougie was passed beyond the point of obstruction. A tunneled sound inserted over the filiform was firmly held at the seat of stricture. Hemorrhage followed the withdrawal of the instruments. The meatus was incised to 32 F., but no instrument could be passed beyond the bulb until the third day after the operation, when a small sound was admitted. On the fifth day sounds from 28 F. to 36 F. were successively introduced to the bladder with no subsequent hemorrhage or urethral irritation whatever.

I refrain from consuming time with a rehearsal of the pathological conditions associated with the various types of urethral stricture. We should ever bear in mind that the first consideration in treatment one, which requires more than ordinary judgment and skill, must be attention to the inevitable train of reflex disturbances so commonly started by this disorder.

Alcoholic indulgencies must be absolutely forbidden; highly seasoned food withheld, and sexual gratification interdicted. Moderate exercise on horseback or bicycle may be permitted. The function of the skin, bowels, and kidneys should receive attention, and may be promoted by recommending some bland diuretic and laxative waters. In order to enable the bladder to empty itself completely the urethral canal must be made sufficiently large to support properly the function of urination and thus avoid by anticipative action any suffering should temporary swelling or spasm occur.

The tendency which all organic strictures manifest to contract

must be overcome by occasional passage of a sound of adequate caliber to maintain rightful expansion of the canal.

The use of caustics has justly fallen into disuse, and divulsion, though sometimes resorted to, is not looked upon with much favor, since both are liable to subject the patient to suffering without protecting him from a rapid contraction of his stricture with the super-added detriment of a cicatricial formation destined sooner or later to affect seriously the integrity of the urethral floor.

Recontraction more rapid and pronounced is liable to follow from divulsion than from a clean incision skilfully practised.

The following measures are most commonly employed for enlarging the urethra:

1. Gradual interrupted dilatation.
2. Continuous gradual dilatation.
3. Internal incision.
4. External incision.
5. Electrolysis.

The only benefit occurring from electrolysis appeared to me to be a very transient one, resulting from a sedative action upon spasm which is always present at the seat of stricture as well as reflected to the deeper and more sensitive portion of the urethra.

Before deciding upon the cases suitable for urethrotomy the wise admonition of Keyes should ever be borne in mind. He advises that indication for a cutting operation is not that the stricture is of very small caliber, but that it is non-dilatable, and the following case will afford a striking example of the wisdom of this maxim:

M. K., about thirty-five years of age, complained for some time of frequent and painful urination. Retention of urine was relieved by the catheter in the hands of his family physician.

This patient being directed to me for treatment an examination revealed strictures of large caliber in the pendulous urethra, the meatus admitting an 18 F. bulbous bougie, and the circumference of the penis measured three and one-half inches.

At the first examination it was not possible to introduce a filiform bougie beyond the bulbo membranous junction. A few days later I was summoned to relieve him of retention of urine, but no ordinary catheter could possibly be passed. With great difficulty, after long and patient trial, a filiform bougie gained entrance into the bladder. Over this a tunneled silver catheter was then caused to traverse the urethra, thus relieving the retention. On withdrawing the instruments some hemorrhage occurred and the patient was seized with a sharp chill. An attack of acute rheumatism ensued which interfered

with further urethral instrumentation. Urination, however, was induced and facilitated by immersing the penis in warm water.

When the attack of rheumatism abated the stricture symptoms recurred, requiring another exploration of the urethra, which again resisted all instrumentation until the meatus was incised to admit a 34 F. bulbous bougie, when 24 F., 26 F., and 28 F. sounds were successively introduced to the bladder. On the third day after, I passed a 34 F. sound without any trouble.

This case affords one of the best examples of dilatable stricture, although the indications appeared so strongly at first to demand resort to urethrotomy.

I have not referred to the endoscope as a means of diagnosis because I do not consider it so useful an aid in stricture as in other lesions of the urethra simulating symptoms of stricture. Though this instrument may prove very serviceable for visual exploration of the urethra its disclosures cannot rival the knowledge to be gained through dextrous instrumentation when deciding the necessity of operative procedure.

As the urethra is rendered more sensitive by the presence of any lesion than it usually is in its normal state, when instrumentation is practised for diagnostic purposes, it is advisable always to render the canal absolutely insensitive by cocain before any such investigation is attempted. The erethism is temporarily so aggravated without anesthesia that the resistance offered to the passage of sounds may simulate the presence of a stricture when none really exists.

My usual custom, therefore, is to first wash out the urethra with a one-per-cent. solution of carbolic acid or lysol, using a small urethral nozzle attached to a syringe of half an ounce capacity. After this an injection of 10 minims of a ten-per-cent solution of cocain is made as far down as possible and retained there for five or ten minutes.

It is next proper to estimate the circumference of the penis and observe how nearly this approximates the capacity of the orifice of the urethra. Successive bougies with bulbous extremity are then tried until one is easily admitted to the membranous portion, when a urethral sound of similar dimensions is introduced to the bladder. Should the sound be arrested at the bulb it is probably the result of a spasmodic stricture due to an anterior contraction. A large experience will certainly convince any one that deep permanent strictures are of rare occurrence, not associated with deep abscess, or the result of traumatism or pathological changes in

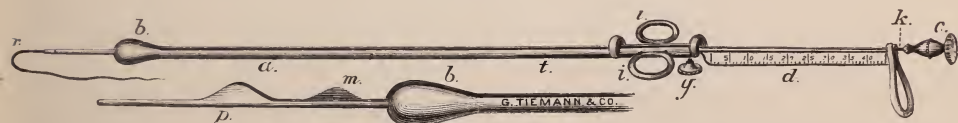
the prostate. Different sizes of bulbous bougies should be experimented with until arrested either on its insertion or withdrawal. If the contractions are so decided as not to admit the passage of a filiform bougie the conclusion may be drawn therefrom that final recourse must be had to internal urethrotomy to relieve the urgent condition of the patient. The selection of the most appropriate instrument to effect a safe and satisfactory division of the stricture is the next step in order.

To meet the indications in what are termed strictures of large caliber, though many such do not require incision, the dilating urethrotome of Dr. F. N. Otis is the one I prefer, with the caution, however, not to dilate the canal to the full correlative size. The knife being drawn through the stricture tissue relieves the obstruction, and with careful regular passing of sounds the full size may be more safely admitted with no subsequent deformity of the organ such as results from excessive dilatation with incision through the urethra into the substance of the corpora cavernosa or the septum.

In strictures of very small caliber the deft stricture cutter of Maisonneuve is required, but it has the great disadvantage of cutting from before backward and is, therefore, liable not to make as accurate an incision as one operating upon the stricture from behind forward. The former proves not infrequently a hazardous weapon in the hands of even a cautious operator. To meet this requirement in close strictures, I designed the following urethrotome¹ some years ago which has always served me well in this class of cases.

My first experience with this instrument was with a case, in my service at Charity Hospital, of such exceedingly narrow urethral caliber that a No. 3 F. bougie could with difficulty be passed. The instrument has a much smaller staff than the ordinary one of Maisonneuve, and is made to cut from behind the stricture forward.

FIG. 5.



The above instrument consists of two cannulae, one fitting easily within the other. The distal end of the larger (or outer) cannula is furnished with a bulb, *b*. The smaller (or inner) cannula carries a filiform bougie, *r*, and a grooved prominence, *p*, which acts as a sheath for a blade, *m*. The blade is attached to a delicate rod, made

¹ *Medical Record*, December 1, 1888.

small enough to play freely through the caliber of the smaller cannula, and, by manipulation at *c*, can be made to traverse back and forth between the bulb, *b*, and the sheath, *p*. At *d* is a graduated scale, which serves both to indicate the amount of stricture tissue involved and to regulate the distance the knife is to be withdrawn, in order to avoid unnecessary incision of non-morbid tissue. It will be observed that by this method of operating the greatest degree of accuracy of incision is attained, and that there is the minimum degree of risk run in wounding normal parts of the urethral canal.

REMARKS ON ARSENICAL PIGMENTATION, WITH A REPORT OF TWO CASES.

By W. A. HARDAWAY, M.D.,
St. Louis, Mo.

WHILE I was aware that following the internal exhibition of arsenic there may occur various disturbances of the skin, inflammatory and otherwise, I was also under the general impression that arsenical pigmentation was a gradual process, a more or less uniform staining not preceded by congestive or inflammatory changes in the cuticle. Moreover, this seems to be the opinion as expressed in the standard works. For example, Morrow, in his admirable monograph on "Drug Eruptions," says that, "Among the incidental effects of arsenic upon the skin may be mentioned certain grayish or brownish discolorations, which are especially liable to occur upon the face and various parts of the body after its prolonged use." It is true, that here and there cases are reported in which certain types of dermatitis were coincident with the pigmentation. Under this same heading of arsenical pigmentation, Morrow refers to a case of his own in which there was "an erythematopapular eruption with a grayish-brown, almost black discoloration of the surface, especially marked over the abdomen and inner surfaces of the thighs;" but he does not mention what connection existed between the two.

In an interesting paper on "Arsenical Affections of the Skin," by Dr. Moreira of Brazil,¹ the writer reports a number of cases in which pigmentation followed arsenical erythematous, papular, pustular, and furuncular eruptions. A study of these cases shows that where the cutaneous disturbance was in the nature of a generalized inflammatory condition, especially as evidenced by desquamation, pigmentation always ensued; whereas, in cases of zoster, or in those

¹ *Brit. Jour. Derm.*, December, 1895.

instances in which the toxic effect of the arsenic was exhibited in thickenings or wart-like lesions of palms and soles, discoloration was absent, although even in such cases pigmentation might have been present as the result of unnoticed inflammatory disturbance of the general surface.

Thomas Hunt long ago called attention to the dirty-brown appearance of the skin in those taking arsenic, and also to the "delicate

FIG. 6.



desquamation of the epidermis, which is, in fact, a faint form of pityriasis." Dr. T. C. Fox, from whom this quotation is taken, also says that the occurrence of this diffuse pigmentation with desquamation is a well-established fact.

The question, therefore, that presents itself, at least to me, is whether there exists such a thing as arsenical pigmentation without

previous inflammation, however slight, of the skin? Argyria is in no way analogous because here the discoloration is due to the actual deposition of the metal in the tissues.

My attention was particularly called to this question by two cases that came under my care a year or more since,¹ and it seems to me that they fully illustrate the fact, at any rate in these particular instances, that the pigmentation was due to the antecedent inflamma-

FIG. 7.



tion, and, moreover, that it was exactly limited to the original lesions.

CASE I.—M., medical student, aged about twenty-five years, had suffered for a long time from an occipital neuralgia, and having tried various remedies without any lasting relief began administering to

¹ Illustrations of these cases were shown at the meeting of the American Dermatological Association, September, 1895.

himself Fowler's Solution in 3-drop doses; but in trying to increase this dose a slight conjunctivitis supervened. Afterward, however, he gradually increased the dose up to 12 gtt. three times a day, but with the result of again producing conjunctivitis. He continued, however, in spite of the eye trouble for about five days longer, when he noticed a maculopapular rash about pin-head in size on the thighs, over the buttocks, and in the lumbar region. The exanthema continued to spread for the next ten or twelve days, at which time the arsenic was stopped, and at the same time there was no further extension of the affection. The lesions, which were quite small at first, grew larger and in many instances coalesced, some of them acquiring a diameter of one-sixth inch. Somewhat slowly they began to change color, becoming of a dark brownish hue. According to his statement, when the change in color began there was established a firm desquamation in the order of the appearance of the rash.

When I first saw the patient I observed a general brown discoloration of the skin, which upon close inspection was seen to be made of separate small macules. It was then the patient assured me that the brown lesions had originally been red, and related to me in effect what has been stated above. I should remark that the patient had a peculiar complexion—a sort of dark, Indian-red hue.

CASE II.—This patient, a girl of some nine or ten years, was brought to me by a neurologist for a peculiar dirty-brown or grayish mottling of the integument. The child was suffering from epilepsy and had taken Fowler's Solution for a long period. Some time before I saw her there had developed in the situations now occupied by the pigmentation a morbilliform rash, which had gradually turned dark. There was the usual desquamation.

In neither of these cases did the pigmentation occur in any other situations than those that were the seat of the preceding red rash. It is quite likely that had the rash in either of the cases above related been of a diffuse scarlatiniform type the pigmentation would have been correspondingly diffuse.

Since writing these brief notes I have had the good fortune to meet with the following statement from Dr. T. C. Fox¹: "Congestion of preexisting areas of eruption is frequently seen during arsenical treatment, and I agree with Hyde that erythism of the healthy skin is not uncommon, and I believe that the pigmentation and desquamation is a sequence of such constantly recurring hyperemia."

¹ Footnote to Morrow's "Drug Eruptions" in the Collection of Selected Monographs of the New Sydenham Society, London, 1893. The previous quotations are from the same source.

Society Transactions.

TRANSACTIONS OF THE FRENCH ASSOCIATION OF GENITO-URINARY SURGEONS.

SECOND SESSION, OCTOBER 21-24, 1897.

PROFESSOR GUYON, *President.*

(Concluded from page 82.)

Two Cases of Anuria Due to Calculus.—Necessity for Early Operation. M. BEGOUIN reported two cases; the first was a woman, who, having refused any operative interference, died on the eleventh day. From the third day she had shown signs of uremic intoxication; on the sixth day she had subdelirium; from the eighth day, coma.

The second case was a man, fifty-one years old, who was operated upon on the fifth day of the anuria by lumbar nephrotomy. This was followed by what seemed to be sufficient urination by the urethra after the passage of considerable gravel. The quantity continued sufficient, though he had nocturnal subdelirium; then the fourth day muscular tremors, continuous delirium, coma; death on the eighth day. There had been no fever, no suppuration in the wound, no signs of peritonitis nor iodoform poisoning. His symptoms were those of uremia.

Death by uremia, in spite of reestablishment of urinary function, is not very rare. It is because the intervention or restoration is too late for the system to throw off its poisons by the kidney.

For several years the rule was to wait till the seventh or eighth day of the anuria before interference. Legueu lowered this in 1890 to five days. Donnadieu in his thesis, 1895, fixed about the same limit.

To be sure, success has been obtained by operations made on the fifth, sixth, twelfth (Pousson), and fourteenth (Chevallier, Duret) days; these are exceptional, which only show that it is never too late to attempt operation. But if we consider that the phenomena of uremia appear even from the beginning of anuria, that death may occur suddenly in the period of apparent tolerance, we shall comprehend the necessity for early interference.

In complete anuria due to calculus which has existed longer than forty-eight hours it seems justifiable to act quickly, as in the case of a strangulated hernia.

If medical or mechanical means energetically employed are not followed by success within a few hours, operative interference should not be delayed. By this means the mortality of this affection will be reduced to a minimum.

M. LEGUEU thought that it was impossible to fix the exact moment for operative interference. The reaction of patients in the presence of the intoxication differs widely; some succumb at the end of a few days; others resist its influence a longer time. He believed we should operate at the earliest possible moment; he never delayed in proposing operation. As to the mode of intervention he preferred nephrotomy. Catheterization of the ureter was to be thought of.

M. LOUMEAU had operated in the case of a patient who was in a state of semicoma on the seventh day by lumbar nephrotomy. The urinary function was reestablished but patient died at the end of forty-eight hours. He believed we should operate at the earliest possible moment; unfortu-

nately in practice this was not always easy to do. Recently he had a patient who had been, the year before, operated upon by lumbar nephrotomy of the right side; at that time the left was involved. Operation was refused until the fifth day. While preparing patient for operation the obstacle gave way, rendering operation needless.

M. BOURSIER: The anuria is not the sole indication for intervention. This may exist several days without being accompanied by the general phenomena, and may terminate by the expulsion of sand and gravel. We should be guided by the general symptoms, not by the duration of the anuria.

The same in oliguria. Some patients, on account of gravel, will secrete a very small quantity of urine. This oliguria comes with each crisis. This is not sufficient indication for operation, else nephrotomy would have to be performed every time there was the formation and expulsion of gravel.

On the Cure of Extrophy of Bladder by Marginal Sutures. M. DURET recognizes (1) partial extrophy; (2) complete; (3) complex. It is inexact to suppose that the deformity is always the same. We may have cases where there is a simple vesical fissure, with or without alteration of the pubis; there are others where the anterior wall is simply divided without any extensive loss of substance. The bladder is simply everted and retracted; it may be very small. This should be reduced and a cavity reestablished. It is sufficient to close this by suture. The steps of operation are as follows: (1) Dissection of the extrophied organ and vivification; (2) reduction of the bladder and suture of its border; (3) vivifying and closure of the urethral epispadias; (4) autoplasty of the abdominal wall (muscles and skin), to support the reduced bladder. Autoplasty of the skin of penis.

He reported two cases of extrophy (with plates), one a girl, the other a boy. Operation should be undertaken at the earliest possible age; later the ectopic organ undergoes deformities and retraction which renders a good result more difficult to attain.

Hydronephrosis Due to Calculus in Early Infancy. DR. L. BERNARD reported four cases of hydronephrosis found on autopsy in nursing infants dying of gastro-intestinal disorders. The first was a hydronephrosis, verified by histological and bacteriological examination. The others showed partial dilatation of the pelvis or ureter, and also were aseptic. In all the cases the urine held in suspension gravel of uric-acid origin, to which, in absence of other recognizable cause, he attributed the development of the hydronephrosis.

These seem to explain, by existence of a previous lithiasis, the etiology of some cases of old hydronephrosis of which the origin is obscure.

Urethritis Not Due to the Gonococcus. DR. J. ERAUD. From 1879 to 1884 the ground was held that the gonococcus was the sole cause of hemorrhagic urethritis. But since 1884 divers authors have reported cases of urethritis in which micro-organisms other than the gonococcus have been found. In spite of the fact that the existence of urethritis not due to the gonococcus is no longer contested, their classification is still difficult.

Judging by the silence of the authors, urethritis not due to the gonococcus should be very rare; from its nature it may be chemical or microbic. In the case of the so-called aseptic urethritis, is this aseptic primary, or simply an aseptic phase of the malady? In order to explain this it is necessary either to suppose a toxalbumin capable by its action of producing an aseptic suppuration, or else to cast doubt upon the perfection of our staining methods, on the ground that they do not reveal all the micro-organisms which may be present. Otherwise, we must admit (1) the rarity of urethral suppuration not due to the gonococcus; (2) the probability that the saprophytes of the urethral canal play a rôle in the different complications, as

cystitis, orchitis, etc.; (3) that these saprophytes appear to have but slight powers of resistance; (4) that their *rôle* is not absolutely univocal.

But as regards those cases of urethritis which are secondary to a previous gonorrheal stage, we must admit that these are much more frequent. They may be divided into suppurating or muco-albuminous. (a) The suppurating urethrites are characterized by the production of a discharge more or less abundant, more or less yellow, presenting exacerbations or chronicity. (b) The muco-albuminous urethrites are characterized by a viscous and transparent mucous discharge. This secretion is colorless; it may be the result of a prostatic or a urethral secretion. Occasionally micro-organisms may grow in this secretion; at other times we may find so few that we can look upon these cases as aseptic.

DR. NOGUÉS passes over the specificity of the gonococcus which is now admitted by everybody (discussion on this point has become tiresome), and prefers to insist upon the diagnosis of these cases of urethritis, non-gonorrheal, which, in spite of what has been said, is always possible and most often easy. The question of the gonococcus has been curiously clouded by the ideas advanced concerning the pseudo-gonococci, which are normal denizens of the urethra, having the same reactions to staining without the pathogenic properties. These pseudo-gonococci do not exist. In case the microscopical examination leaves us open to doubt, resort to culture will make it clear.

He divides urethrites not due to the gonococcus into two principal classes according as the discharge contains micro-organisms or not, then according as the previous condition of the canal influences the present state he makes two subdivisions, primitive and secondary.

Urethrites of microbic origin which are primitive are exceptional. Nogués has collected twenty-six cases. They appear to be due to various micro-organisms. Those which are secondary are very frequent, but it is necessary to distinguish between those infections located at the fossa navicularis, and those which extend into the canal. The micro-organisms met with are very numerous. He has already described five: three are micrococci and two are bacteria.

As to primitive urethritis non-microbic in origin, he has never seen a case, and it would have to be subjected to the microscopic examinations and to culture in order to establish its existence. The most common are those secondary to a true gonorrhea, and are the most common type of chronic inflammations of the urethra. They seem to be due to two causes, the phenomena of irritation and the anatomical modifications. Here, also, the histological examination is necessary.

As to the possible complications of the urethrites, non-gonococcic, and above all their contagiousness, this is a knotty question of daily occurrence.

Some Cases of Urethritis, Aseptic and of Primitive Infection.

DR. JANET. These affections are as frequent after gonorrheal invasion as they are rare before it. He has seen four cases of aseptic urethritis and four infections, which he believes to be primitive in origin. Of the four cases which he calls aseptic, two might logically be connected with an attack of urethral herpes. The other two cases followed coitus, one upon the following day, the other occurring fifteen days after. These two cases are not explainable by any facts which we possess to-day. They presented absolutely the appearance of an infectious disease without it being possible to discover any microbe.

Of the four cases of infectious urethritis which he had seen, one was due to an extension into the urethra from an infectious balano-posthitis, another was due to a diplobacillus; the two last were also due to a bacillus diplococcus.

DR. REYMOND did not believe that the contagion in a case of non-gonorrheal urethritis was much to be feared. In a case which he had published the saprophyte found in the Fallopian tube was accompanied by the gonococcus; on the other hand, he saw no reason to believe that this saprophyte cannot be found in the normal state in the genital organs of either men or women. Microbes other than the gonococcus found in a *goutte militaire* he did not believe rendered it any more dangerous than if no micro-organisms were found. In the latter case he always has the fear that the discharge, apparently aseptic, is really due to the gonococcus whose presence he has not been able to discover.

The expression aseptic urethritis is a bad one, the expression chemical is no better; chemistry wrongly profits from the ignorance in which at present bacteriology leaves us.

As to cultures of the gonococcus, these may render us some service. On a number of occasions he has been able to discover by culture gonococci which he had not been able to find by direct examination.

DR. HOGGE did not believe the microscope alone was a sufficient test as to whether we could permit marriage.

It seemed to be the prevailing idea that we could consider as aseptic and treat as such those discharges in which microscopic examinations repeatedly made did not reveal micro-organisms.

He desired to report twelve cases of aseptic urethritis accompanying glandular suppuration of the prostate. Nine of these patients had had no venereal accidents, three had had gonorrhea long before (thirty-five, five, and seven years) who had had no trace for several years.

In conclusion, he desired to direct attention to the prostate in all those cases of urethral suppuration, supposedly primitive, unusual in their incubation, their chronicity, and their evolution.

DR. GUIARD, contrary to Dr. Eraud, from his own experience thought these cases of non-gonorrheal urethritis and their complications were rare, and, further, were almost always due to some traumatism or catheterization, or badly made injections. In a case of aseptic urethritis he had seen an arthritis of the knee and an iridochoroiditis supervene spontaneously. This patient had never had rheumatism, but had had a gonorrhea of which he had been radically cured for a year.

DR. JANET thought that those having urethræ containing gonococci were not the only ones in whom we should forbid marriage. Those patients subject to secondary infections due to a single kind of micro-organism, penetrating deep into the urethra, were, he thought, equally dangerous, more dangerous surely than those having the simple chronic *goutte* infected with divers microbes. If these cases are not capable of giving serious salpingo-ovarian infections to their wives, they at least were capable of giving those mucopurulent uterine infections seen in married women.

DR. KRAUS proposed the name urethritis oligococcic in the place of aseptic urethritis.

Suprapubic Cystotomy and Resection of the Vasa Deferentia in a Prostatic. Ultimate Results. DR. TAILHEFER had done suprapubic cystotomy, and followed this within twenty-four days by resection of the vas. This was fourteen months before. Patient enjoyed good health; urinated perfectly. Has had no new attack of retention; has had no treatment during this time. For ten months he had had a severe infection, caused by the attendant trying to replace the drain without aseptic precautions. Patient did not allow his cystitis to be treated, but it cleared spontaneously. Prostate was smaller and very hard; testicles unchanged in size.

A Curious Form of Cancer of Urethra. DRS. BINAUD and CHAVANNAZ. The patient was a man forty-four years old; penis was deformed,

the posterior portion was indurated and appeared as if in erection; the anterior portion, including the glans, was flaccid and normal. Exploration of urethra caused bleeding. Later there was extravasation of urine and an external urethrotomy was performed. Patient died. Autopsy showed an encephaloid cancer involving back part of anterior urethra, a portion of one corpus cavernosum, and a portion of the prostate and posterior urethra.

Sarcoma of Urethra. Total Emasculation. DR. MANACHESS reported a case. There was no evidence of return at three months.

DRS. HARTMANN and REYMOND reported a case of retrovesical collection of pus coming from the appendix, with the passage of the bacterium coli communis through the bladder-wall and appearing in the urine. It disappeared from the urine on removal of the pus collection.

DR. MALHERBE reported four cases of tumor of the bladder; three papillomata and one sessile.

DR. POUSSIN reported a case of tumor of the bladder.

DR. DESNOS reported a study of fragmentation and spontaneous expulsion in tumors of the bladder.

DR. NICOLICH reported a case of vesical tumor growing in an enormous diverticulum.

DR. PICQUE reported two cases of removal of foreign bodies from the bladder.

DR. LEGUEU reported a method of exposing the superior surface of the urethra beneath the symphysis, in the female, in order to open it on this surface in operation for polypi and papilloma of the urethra, followed by resuturing. He believes it to be more advantageous than cutting through the inferior wall into the vagina, and believes that healing takes place more easily.

DR. JANET reported five cases of polypus in the male urethra; says he has never seen a polypus in the posterior urethra.

DR. GLAUTEVAY reported a case of diffuse syphiloma of the penis cured by specific treatment.

DR. HOGGE presented microscopic studies showing the anatomy and development of the urethra and prostate.

Book Reviews.

American Year-book of Medicine and Surgery. Edited by GEORGE M. GOULD, M.D. Philadelphia: W. B. Saunders, 1898.

It seems a pity that space cannot be spared in these crowded pages for a complete critique of this huge volume, but, as heretofore, it must be confined to the JOURNAL's titular subjects. One thing should be said. Every practitioner in special lines must, if he has due regard for his art, keep abreast of the foremost rank of advance along the whole line. He may go many a day's journey into the world and find the work nowhere so well done for him as here.

As in the 1897 edition, Dr. Duhring edits the department devoted to Cutaneous Diseases. This JOURNAL has certainly nothing to complain of in the space accorded to its articles, so that no accusation of pique can be laid to it anent the criticism to be made. Neither in this section nor in that devoted to genito-urinary disease is the selection as good as it might and should have been. With all due respect, Anglo-Saxon literature occupies too much space. Except Germany and France, Europe is almost without

representation. Italy, Russia, and Scandinavia are working hard to hold their honorable places they have won. The difficulty of language is not insurmountable—an abstract of an abstract is better than none at all, as the editors themselves evidently think. The selections, individually, are well done and much is added by the editors' comments. Syphilis is accorded only four pages in this section, but in its organic aspects may be found scattered through the volume. There are no half-tone illustrations, and of the lithographs, that taken from the JOURNAL'S February, 1897, plate is hopelessly bad.

Genito-Urinary Surgery is properly a part of the section on General Surgery, edited by Dr. W. W. Keen. It is treated in three parts: External genitals, bladder and prostate, kidney and ureter. Almost the whole of the second division is given up to surgical treatment of prostatic hypertrophy. No mention is made of Chismore's ingenious method of removing polypoid growths from the bladder. Guyon's brilliant school is represented only by Albarran. Venereal Diseases receive fairly satisfactory treatment, but, as in the case of syphilis, the index is much needed in getting all the material together. Four hundred pages separate the gonococcus from gonorrhea. On the face of it, a better plan of arrangement would be to make the consideration of each disease an editorial, cementing together the work of the year, not leaving bridgeless gaps between pathology and treatment.

A System of Practical Medicine. By American Authors. Edited by ALFRED LEE LOOMIS, M.D., and WILLIAM GILMAN THOMPSON, M.D. Vols. II. and III. New York and Philadelphia: Lea Bros. & Co., 1897-1898.

Volume II. of this system is the one which presents the greatest interest to the JOURNAL'S readers, since it contains the chapters on diseases of the kidneys, bladder, and prostate; the first written by H. P. Loomis, Danforth, and Tyson, the last two by Danforth alone. Loomis treats in thorough manner of nephritis and endeavors to simplify the classification of these diseases. His article is illustrated by numerous good photomicrographs. Danforth's articles include pyelitis, divided into catarrhal and suppurative, renal calculus, hydronephrosis, tumors, abscess, parasites and neuroses. It is evident that his standpoint is the physician's, not the surgeon's. When he recommends an operative procedure, no details or methods are given. It is a pretty fine distinction he draws between catarrhal and suppurative nephritis, especially when he assigns an etiologic rôle to calculi in both. It is extremely doubtful if the author has ever seen sandal oil produce a pyelitis. If he has, why does he recommend it and other balsamics so highly? Triticum repens receives the consideration to which it is entitled in this connection. Diagnosis is usually well done, although no mention is made of the X-ray in renal calculus and none of the ureter cystoscope anywhere. We are at a loss to understand why syphilis of the kidney is neglected when it is considered in connection with lungs and heart. (This is the fault with all systems. No subject is ever thoroughly handled or finished, the reason being its distribution to a number of authors.) Danforth's articles on bladder and prostate are incomplete and unsatisfactory for other reasons. The cystoscope is dismissed with a single paragraph and the author emphatically declares that only digital exploration can determine the character of a vesical neoplasm, and advises cystotomy "when it can be done safely." The gentleman deserves the sincerest admiration of all surgeons if his tactile sense is so acute as to enable him to differentiate between a benign and a malignant bladder growth. There are many points to which exceptions should be taken (treatment of acute cystitis, formation

of vesical calculus, prognosis of tuberculosis) but space limits forbid and the reader will have no trouble in discovering them for himself. Shattuck and Cabot contribute an admirable chapter on the blood.

Vol. III. is an interesting jumble of unrelated diseases. Trichinosis and food poisoning separate intestinal parasites and diseases of the peritoneum, and so it goes, but the dull pages are few and far between. Purpura is a "miscellaneous subject." G. R. Lockwood treats of it under the heads of symptomatic, rheumatic, and hemorrhagic, and does it well, although his first class might include all except senile purpura, which, with Unna's work, he calmly ignores. Warren Coleman contributes a long article on diabetes, with a critical exposition of modern theories of the disease. Morrow's or Allen's article would have helped him to a better understanding of the skin complications.

Selections.

CUTANEOUS DISEASES.

In Charge of Dr. Boleslaw Lapowski.

Xanthoma Diabeticorum. NORMAN WALKER (*Brit. Journ. of Derm.*, December, 1897).

Walker's patient is a woman, twenty-one years of age, both age and sex being unusual in this condition. Her urine showed 22 grains of sugar, 6 grains of urea, and 4 grains of albumin to the ounce. The lesions appeared first on the elbows and knees, chin, and bridge of the nose, and were deep red in color. After six months, the nodules had increased to 800 or 1000, scattered over the extremities, the yellow centers present. None appeared on the trunk. A conical shape of certain papules were noticed. The smaller were yellow in color, with no tinge of red. Subjective sensation was absent. As has been previously observed, regression and relapse afterward occurred, but the improvement was not a part of an amelioration of the general condition. The eruption had, at the time of writing, again disappeared, while the diabetes remained in statu quo. As regards *glycosuria*, the author is of the opinion that neither the amount of sugar nor the nature of the diabetes has any evident relation with the appearance of the eruption. Every variety has been seen in this connection and the amount of sugar has ranged from 8 grains- $\frac{3}{4}$ i to 8 per cent. In many cases sugar was discovered only after the appearance of the eruption. In none (?) of the cases had diabetes been known to exist much longer than a year before the appearance of the eruption. *Microscopically*, Walker found a new growth of connective-tissue cells, with few leucocytes. The old connective-tissue fibers were broken up, rarified, and disappearing while new ones were taking their place. The nature of the cells was not determined; they were certainly not lymphoid. Fat was seen in abundance. It appeared to lie free in the tissue interstices, not an element—the vessel walls even—escaped. Its formation has been often described. The fat cells bore close resemblance to those of sebaceous glands. The fatty change is a late one and apparently not essential to the process. Of two nodules examined, the early one, red in color, showed much less of this metamorphosis than the later lesion. The nature of the new growth is not inflammatory; it more nearly approaches the granulomata. Some organismal cause may lie at the bottom of the process. A bibliography, colored plate and photographs accompany the article.

P. S. ABRAHAM (*idem.*, December, p. 475, 1897, and January, 1898, p. 15) presented two cases of the disease to the Society of Great Britain and Ireland. Both were men of middle age. The urine of the first showed six per cent. of sugar; the second, scarcely a trace. The lesions in the second were larger and apparently firmer, more numerous, and more permanent. In both, they occurred chiefly on the flexor surfaces, contrary to the usual finding.

(Dr. Walker records only thirty cases; seven new ones since the appearance of the reviewer's article in 1895.

He has failed to list:

Maiocchi.—*Monatshft. f. Prak. Derm.*, No. 2, 1896.

Robinson.—*JOURNAL OF CUT. AND G.-U. DIS.*, Dec., 1896.

[Sherwell's case, referred to as unreported.]

The two cases of Abraham above mentioned. He is undoubtedly correct in adding Geyer's case, although the observation itself is of no great importance. The propriety of ascribing two cases to Hillairet is questionable. The number recorded (there are two others in New York which should be jotted down somewhere) is thus brought up to thirty-three, an increase of ten in two and a half years, showing that the disease is not so rare as has been thought.

It is impossible to get away from glycosuria as an accompaniment if not a causative factor. Payne, in debating Abraham's case, said that the glycosuria in his second patient, supposed to be transient, had turned out the last stage of diabetes.

Most observers agree now with Walker that diabetic xanthoma, even in its early stage, is not an inflammation. He is right in all probability when he says that it is allied to granulomata. The early cell-infiltration is not leucocytic, nor lymphocytic, but possibly *endothelioid*, as in urticaria pigmentosa. We know a diabetic endarteritis, why not also a lymphangitis? These endothelial cells are prone to fatty metamorphosis. In this way we get an explanation of the presence of fat droplets in the vessel walls, a significant fact. As to the relationship with diabetes, it may be said, without equivocation, that it is not understood. Nevertheless, this process is an irritation, the irritant being circulatory. Does any one know what the irritant is in lichen scrofulosorum, in urticaria pigmentosa, in the parasymphylides, and does any one doubt, therefore, that there is one underlying the pathological process? Whatever it is—toxin, phloridzin, pentose—in this particular instance its action, as in the dermatoses cited, results in the formation of a granuloma whose cells have a tendency to fatty metamorphosis, the same poison producing the connective-tissue destruction noted by every observer. This destruction is not unique; it has been noted in pemphigus.)

J. C. J.

Dermatitis Medicamentosa. Lactophenin. ARMIN HUBER (*Correspondenzblatt f. Schweizer Aerte*, No. 24, 1897).

The patient, an elderly woman suffering from nephritis and cirrhosis, had taken the drug for headache, 7 grains a day, during the period of a month. On one occasion she took 11 grains of lactophenin in two doses. This was followed by an eruption of prickly heat and swelling of the face, with chill and headache. Later, erythema appeared and vesicles formed on the lip. The tongue swelled, ulcerated, and gave a fetid odor to the breath. Pruritus of the genitals with ulceration of the right labium caused much annoyance. In eight days the symptoms disappeared; during the interim, there had been no change in the urinary excreta. Other observers have recorded instances of icterus and macular erythema after lactophenin.

Antipyrin. HENRI FOURNIER (*Journ. des Mal. Cut. et Syph.*, No. I, 1898) reports a case of eruption following the use of this antipyretic. It was taken for pelvic pain and headache. The author describes two attacks of the dermatitis, the observations being vitiated by the administration of quinin, to which part of their severity may have been due. Both outbreaks began with intense itching over forearms and body, followed by erythematous patches on which bullæ formed. After a variable duration, the efflorescences subside, leaving pigmentation. In the first attack quinin was administered by the physician; in the second, the patient took an equal part dose of quinin and antipyrin. The author appears to take no note of this fact. The value of the article lies in the careful consideration of other reported cases.

Potassium Iodid. AUDRY (*Annales de Derm. et de Syph.*, No. II, 1897) gives details of a case in which two outbreaks occurred. In the first, the iodid caused a bullous eruption, which subsided after discontinuing the drug. Later, it was taken for a period of six months and caused ulceration of the skin in various regions, the most extensively involved being the perineal and lumbar. The ulcers were punched out, with somewhat raised borders. The mucous surfaces were unaffected.

Hydroa Aestivale with Hematoporphyria. MCCALL ANDERSON (*Brit. Journ. of Derm.*, January, 1898).

Two cases are given, occurring in brothers, which presented almost identical features. As usual, the eruption appeared with warm weather and ceased in winter. In one, however, after long continuance, winter only brought remission. The attack began with itching and tenderness of the face and hands, followed later by the appearance of vacciniiform bullæ. Loss of tissue from repeated attacks produced very striking deformities of the nose and ears, much like that caused by lupus. The fingers, from cicatrization and contraction, could not be completely flexed. The curious feature of the cases was the color of the urine, a Burgundy red, due to an ally of hematoporphyrin. This phenomenon disappeared in the intervals between attacks in one case, but in the second the urine never regained its ordinary color. The author thinks a connection may exist between the eruption and hematoporphyria.

Xerostomia. THOMAS HARRIS (*Am. Journ. of Med. Sciences*, March, 1898).

The author reports a case of this rare condition, first described by Hutchinson. "Dry mouth" is produced by a failure or absence not only of the salivary secretion but of that of the buccal glands in general. In Harris' case an unusual feature was swelling of the parotids. As a result of the dryness, the patient could taste nothing. Search was made for disease of the pelvic organs, but none was found. It is surmised that the condition is due to some fault of innervation. Thirteen cases have been previously reported.

Granuloma Tricophyticum Maiocchi. PINI (*Arch. f. Derm. u. Syph.*, bd. xlii, ht. 1).

This form of tricophytosis differs from both kerion and sycosis. It is manifested in the form of round or flattened nodules, pink to bluish-red in color, dotted here and there or arranged in moniliform manner. They do not suppurate or ulcerate, but may soften. Histologically, the name granuloma is justified, the fungus being found in the shape of spores and hyphæ

between the cells. The appearance differs markedly from that of ordinary trichophytic folliculitis. Three cases are reported.

The Nature and Pathogeny of Zoster. GROSJEAN (*Gazette des Hôpitaux*, No. 18, 1898).

The author formulates his conclusions in the following way, stating the impossibility of drawing them exactly: All the eruptions of zoster depend on a lesion of the nervous system, the site of the lesion being unknown at present. Changes have been found at autopsy in spinal ganglia, but the majority of the examinations have been incomplete. Peripheral nerves and the cerebrospinal axis have not been examined systematically. Moreover, there are good theoretical reasons in favor of an anatomic basis lying in the cord. More careful observations are, therefore, necessary. The nature of the disease is equally doubtful. Zoster may be only a symptom of a general infection; in many cases it may be dependent upon a special organism, of which nothing is known. The disease may appear as the result of a toxi-infection or an autointoxication.

A Case of Pityriasis Rubra. J. B. COLEMAN (*Dublin Journ. of Med. Sciences*, January, 1898).

The patient was a man of twenty, in whom the disease had existed six months previous to his appearance at the hospital. Exposure to cold and alcoholism may have been etiological factors. The skin of the whole body was dull red, covered with thin scales, hot, rough, and dry. Desquamation was generally bran-like, but flaky on the back and extensor surfaces of the limbs. In the beginning, the scales had been larger. The nails were much changed, thickened, and loosened on the great toes, but thinned on the rest. The hair was falling out rapidly and the scalp was covered with yellow scale masses. The furrows of the skin were deepened and increased in number until the crossing produced a crêpe-like appearance. The mucous membranes were not affected.

One Hundred and Ten Patients Suffering with Hypertrichosis Treated by Electrolysis. L. BROCCQ (*Ann. de Derm. et de Syph.*, vol. viii, Nos. 9, 10, 11, 1897).

Remarks on Bearded Women and Other Anomalies of the Growth and General Development of the Hair. F. L. NEUGEBAUER (*Gazeta Lekarska*, Nos. 41-51, 1896).

A Series of Observations on Bearded Women and Other Anomalies and General Development of the Hair. F. L. NEUGEBAUER (*Kronika Lekarka*, Nos. 20-23, 1897).

The Hairy Covering in Men. SCHEIN (*Pester med.-chir. Presse*, No. 1, 1898).

Nutrition of Hair. DEICHLER (*Deut. med. Zeitung*, July 26, 1897).

Needle-shaped Galvanocautery as a Means for Removing Hair. J. BLOCBAUM (*Deut. med. Zeit.*, July 29, 1897).

The Color of the Hair and Hair-dyeing. P. RICHTER (*Dermat. Zeitsch.*, vol. iv, p. 34).

Stili Resinosi for Epilation. P. G. UNNA (*Mon. f. prak. Derm.*, vol. xxvi, p. 26).

Blocbaum's opinion that electrolysis, used for the removal of superfluous hair, occasions objectionable manifestations, which appear during or after the application of electrolysis, is not supported by Brocq. The latter, in a series of very interesting and elaborate articles, considers the question at length. It is to be regretted that lack of space does not permit a full translation of the article to be given, since it is based upon 110 cases of hypertrichosis treated by electrolysis.

The principle of the operation is to insert a fine needle attached to the negative pole of an electric battery in the hair-follicle and destroy the bulb of the hair by passing an electric current of sufficient strength.

The Choice of the Electric Battery.—The best is a portable battery of twenty-four elements, with a continuous current of two to five milliamperes. The batteries are charged with bisulphate of mercury. To the positive pole is attached a metallic handle covered with chamois, which the patient keeps in his hand, or if he wishes to operate upon himself a metallic piece in the form of a pedal, covered with chamois, is attached to the positive pole, upon which he then puts his foot in order to keep both his hands free.

To the negative pole we fasten the needle of iridioplatinum, twenty-two to twenty-three millimeters in length, with a fine thread, in such a manner as to form an angle of 45° . By doing so we gain the advantages of knowing how deep to insert the needle and of an easier management of the field of operation in places like the nostrils, the lower part of the chin, etc. Before beginning the treatment it is advisable to give the patient a tentative sitting, destroying hair in different regions, in order to find out: (1) The amount of electricity necessary to destroy the hair in different places, because the amperage varies according to the thickness and depth of the hair and the quality of the tissue; (2) the mode of reaction of the skin; (3) the shape of the resulting cicatrix.

According to Brocq no assistant is required, as the patient herself can do all that is necessary. A piece of silk is put upon the lap and the positive pole, in the shape of a metallic handle covered with chamois and moistened with salt-water, wrapped with a thick napkin, is placed upon the silk. When the needle is inserted the patient is directed to touch the electrode. She naturally touches it first with the end of one finger, adding gradually another one, till all five fingers are in contact with the handle, ready to grasp the handle with the full palm, if necessary, thus controlling by her own action the degree of intensity of the current. When the hair is destroyed, the patient is advised to let the handle go and the current ceases immediately.

The prime maneuver during the operation is the introduction of the needle into the hair-follicle—the catheterization of the follicle. It must be inserted, while not charged, parallel to and alongside the hair. In order to do it easily and surely, we fix our hand by placing the small and ring fingers on the region to be operated upon. Take the needle-holder between the thumb and index-finger, the middle finger being put alongside the needle. If it penetrates without the slightest difficulty, without any sensation of resistance, we may be sure we are in the hair-follicle, and only need to push the needle to the required depth to reach and destroy the hair-papilla. The approximate depth of the hair-bulb should be estimated before beginning treatment, by measuring the length of a fully extracted hair from the point of its emergence, placing it alongside the needle. The degree of intensity of the electric current is to be modified according to the individual and regional sensibility of the patient and quality of the hair: a thick hair requires a current of two to four milliamperes, while a lanugo is destroyed by one-half milliampere.

The same may be said as to the length of time during which the current is applied; it is impossible to give precise directions. In some places and under certain conditions forty-five seconds are sufficient; in others, five to ten minutes are required, according to the thickness of the hair, sensibility of the skin, and especially the reaction around the needle. The idea of facilitating the insertion of the needle by extracting the hair before the needle is inserted is true in its conception, but it deprives us of the only criterion—the falling out of the hair—enabling us to judge of the success or failure of our action in destroying the hair. The hair treated is to be extracted after the sitting and not immediately after the needle has been removed from the hair-follicle. The importance of this advice is plain if we bear in mind that destroyed hairs, left in their follicles, often give rise to suppurative folliculitis, and if not destroyed, present for the operator the difficult task of reinserting the needle on the next sitting. The reaction around the needle is manifested by a whitish point, surrounded by a minute light-brown zone, the point changes to a transparent vesicle, which gets turbid in a short time. The surrounding skin is swollen, and if we destroy too many adjacent hairs a large, hard nodule is formed. In two to four days all the irritation disappears. If the current is established after the needle has been inserted, and interrupted before the needle is withdrawn, the pain is of little importance. The most sensitive spots are the central portion of the upper lip, the portion around the eyelids, especially the lower eyelid; the least painful are the side-parts of the chin, and the space between the breasts.

It is not worth while to use anesthetics except when we have to destroy thick hair upon the extremities. Ethyl chlorid, directed with the left hand upon the hair, while the needle is inserted with the right and during the passage of the current directed upon another follicle, was very serviceable to the author.

In a sitting of twenty to twenty-five minutes we can destroy about forty thick or about ninety lanugo hairs, provided we do not operate upon adjacent follicles. When the needle is inserted too deep some drops of blood from an injured vessel will appear with the extracting of the needle. They are of no importance. A current of strong intensity, applied for a prolonged time, may produce a considerable modification of tissue. In such cases the procedure is to be stopped, camphorated alcohol applied, and the vesicles opened. The scars remaining after electrolysis are negligible if the operator has taken due care not to destroy at one sitting too many adjacent hairs. The author has seen small infiltrations, sometimes even small keloids, develop upon the lower jaw. The proportion of destroyed hairs, even when due care is taken, is about eight to one of those operated upon. The important question whether electrolysis applied to thick hair does not give to the adjacent lanugo hair an impulse to grow, the author is tempted to answer in the affirmative.

The platinum needle may washed in ether, followed by camphorated alcohol, or in a strong solution of carbolic acid.

In the last eleven years the author had under his care about 400 female patients suffering with hypertrichosis of different degrees. In the 110 cases operated on are included only patients in whom the hypertrichosis was developed upon a normal skin, and not upon *nævi*. Cases where the hypertrichosis appeared immediately after birth or during adolescence, in which the hair was growing spontaneously, without any provocation, are also excluded from the list. Among those patients some belonged to the category which may be called trichophobia—their anxiety to have invisible hairs removed often drove them to melancholy. In such cases, the author thinks we are justified in operating.

Treatment once begun, we must continue it until all the hairs are removed, as the aspect of the affected region will remain the same as before treatment, even if one-fifth of the existing hairs are left. It sometimes requires years to accomplish the total removal of the hair, as the numbers to be removed vary, for instance, in the beard from 10,000 to 19,000; in the chin, from 3000 to 9000.

The author is inclined to ascribe the cause of hypertrichosis, especially in young girls, more to irritation produced by the patient's endeavor to remove the superfluous hair than to other causes, as heredity, lesions of the genital organs, sterility, general debility, and teeth deformities.

In conclusion the author gives the indications for the use of electrolysis in hypertrichosis. In men suffering with hypertichosis the indications for the use of electrolysis are limited, being only advisable in some diseases of the hair-follicles near the nares, of the upper lip, and of the beard; or in cases where the hair disfigures the man's appearance. The indication for electrolysis in women are arranged according to the age of the patient. While his indications are humane and even chivalrous to female sufferers under twenty-five years, his advice not to yield to the entreaties "of a married woman, whose husband is against the application of electrolysis," and to undertake the operation upon the wife "as soon as the husband clamors for the removal of the hair," is ungenerous, as to female patients over forty-five years of age, he thinks it best to persuade the patient to do nothing, "for reasons of a non-medical nature which all understand without explanation."

Neugebauer, basing his statements upon a number of his own cases and upon an elaborate and careful study of the literature dealing with the subject in question, considers the connection between infantilism, feminism, and virilism and the abnormal and unnatural growth of hair in both sexes. He reaches the conclusion that hirsuties occurring in mannish women is sometimes allied to pseudohermaphroditism. While in olden times persons affected with the anomalies in hair-growth were looked upon as monstrosities, at present, owing to the progress of science and the large number of reported cases, the cause of these very interesting anomalies is becoming clearer; it depends upon a dystrophy of central origin, except in cases of *nævi pilosi*. Sometimes hypertrichosis is due to mechanical, chemical, or thermic irritation of the skin. A complete bibliography of the subject is given with the articles.

Schein endeavors to explain the difference in the human and animal hair-cover, and the predisposition of some portions of the human body to hair-growth, by the fact that the human being, during his development, was deprived of some skin-muscles, which the animal managed to retain; as, for instance, the muscles upon the back and neck. In the latter part the so-called platysma myoides in human beings is entirely lacking in voluntary muscular action, while it plays an important rôle with animals. The nutrition of the skin in human beings depends upon the growth and development of its underlying tissues, from which it receives its nourishment. Consequently, where the nutrition of the skin is more favorable, as in regions where the derma comes in closer contact with bones and tendons the growth of the hair will be abundant, as upon the scalp, sternum, and sacrum. The hair-growth in the genital region of human beings may be traced to the prolonged and constant activity of the organs in human beings, as compared with the only periodical activity in animals. The increased activity calls for abundant local nutrition, which gives rise to the luxurious hair-growth of those organs.

Deichler, taking as a basis the fact that, chemically, the hair contains a substance allied to the gluten group, prescribes gluten containing nourish-

ment, in cases where the nutrition of the hair was deficient. In connection with an abundant diet he ordered the patients soups of two parts of meat and one part of bone, sufficiently boiled. Sometimes he gave instead of soup a plain gelatin or a gelatin prepared from deer-horns, on account of the presence of cartilaginous substance in the horns. The beneficial results of such a diet were markedly visible in old patients; their skin became suppler, arteries more elastic, and the general condition improved. In cases where the hair-follicles retained even a small power of activity, he could notice a more luxuriant growth of hair, the soft hair became stiffer, and the falling out of the hair diminished. This action was noticed upon every hairy part of the body; even the nails grew faster and appeared brighter in color. He is of the opinion that a systematic diet of glutinous substances, in connection with a general stimulating diet, has a beneficial action upon the growth of hair, when the falling out is not of a parasitic origin.

The use of electrolysis, according to Blocbaum, has its drawbacks in the formation of scars, in recurrences of the hair, and in the long duration of the treatment. All this is avoided by using his needle galvanocautery. To two separated copper wires two platinum needles are attached. One—the main needle—has a sharply pointed end one to two centimeters in length; the other auxiliary needle has a blunt end. Both wires, with their copper ends, are inserted in and fastened to the holder. When the current is closed the main needle may be heated by bringing the blunt needle, to which a wooden holder is attached, near to the point of the first. The nearer we bring the blunt needle to the point of the other the more is the point heated. To remove hair from the face the operator puts the patient near a window upon a high chair, so to have his eye on the same level as the patient's face. The galvanocautery is placed to the left, the operator to the right. The hairy skin is slightly drawn by the patient or assistant, the main needle—cold—is pushed one millimeter deep beside the hair. The blunt needle is brought in contact with the main needle, using the left hand for that purpose. The moment the blunt needle comes in contact with the main one, the point is heated and a minute vesicle appears. In the same moment the operation is finished, the hair and its root destroyed, and a small, dark point is seen. The same procedure is applied to a second hair, some distance from the first. The author was able in from fifteen to twenty minutes to remove about 100 hairs. The patients feel less pain than when electrolysis is used on account of the shortness of time required for the removal of a hair. Scars are very minute—quite invisible. After the operation cold-water applications are used and a powder of dermatol and talc applied.

The color of the hair, Richter says, depends upon three factors: the natural color of the hair-cells, the hair-pigment, and the air in the hair-shaft. Various combinations of cell-coloring and hair-pigment may produce many shades. The absence of the two coloring factors makes the hair gray, and, combined with the presence of air-bubbles in the substance of the hair, it turns white, a phenomenon due to the reflection of light by the air. The reason for the penetration of air into the hair-shaft is not yet known. Some authors think that the nervous system is affected in such cases, although up to the present no nerves have been discovered in the hair. The question whether the pigment-particles are in the cells themselves or between them is not settled, while the derivation of the pigment is ascribed to a metabolic process in the substance of the epidermic cells, and not to the blood-corpuscles.

The changes of the color of the hair, taking place in the advanced period of life, turning the hair white, are evidences of senile decay. Some-

times after scalp injuries, or nervous diseases, especially after meningitis, separate tufts of hair turn white, giving a piebald appearance. The process begins in the root of the hair and develops more and more with the growth of the hair. In cases of sudden canities the hair contains a sufficient amount of pigment, but is filled with air-bubbles. The basis of the hair-coloring preparations used at present is usually a metallic one. Very often iron, bismuth, lead, copper, and silver are used. The copper and lead preparations are poisonous. Silver, in two-per-cent. solutions by itself, is injurious neither to the hair nor to the general system, but it is usually combined for reducing purposes with pyrogalllic acid—a strong poison. The extract of walnut shell, used for hair-staining, is not dangerous and is durable, but the preparation is hard to obtain, and the so-called walnut extracts in the market contain mostly the above-mentioned injurious substances. The author recommends a preparation known as “Aureol,” which answers all requirements without having the slightest injurious effect. The composition of “Aureol” is as follows: 1 per cent. of metol, 0.3 per cent. of amidophenolchlorhydrat, and 0.6 per cent. of monoamidodiphenylamin dissolved in 50 per cent. of alcohol, to which $1\frac{1}{2}$ per cent. of sodium sulphate is added, in order to keep the ingredients in solution. The two first ingredients each stain separately the hair from light blond to dark-red brown. The dyeing procedure is as follows: After washing the hair with a warm solution of soap, in order to remove fat and sweat, we mix equal parts of “Aureol” and hydrogen peroxid; the mixture is spread with a camel’s-hair brush upon a fine comb and brought in contact with the wet hair, until the hair is saturated with the mixture. After two to three hours the hair is of a dark-brown color, which cannot be removed even by washing with soap and water. If we wish to color the hair in a deep, dark shade, the staining is repeated.

In order to obtain lighter shades, a mixture of equal parts of the former ingredients and 50 per cent. of alcohol, with addition of $1\frac{1}{2}$ per cent. of sodium sulphate, is used. The color remains for several months, but it has to be repeated once in four weeks, to stain the lower parts of the hair, as the preparation undergoes decomposition easily and loses its property. Only small amounts, sufficient for one staining, with a sufficient amount of hydrogen peroxid, should be procured.

The resin pencil is used by Unna to remove the hairs from a circumscribed area, in an easy, relatively painless manner. The pencil is heated by the flame of a lamp and gently applied to the skin in the moment of melting. By blowing, the heated pencil will cool off and the attached hair are easily removed with a slight tug. The brush-like arranged hair can be examined and compared. Destroying the attached hair by the flame of the lamp, the pencil is again ready for use.

The pencil is composed of colophonium mixed with ten per cent. of wax, melts at 61° to 62° , and is cooled very easily.

Outside of favus and sycosis, Unna obtained very desirable results in *nævi pilosi* of the face, as there is less pain produced in removing twenty hairs by the means of this pencil than in epilating one hair with the usual epilating forceps.

[Bulkley has used very similar pencils in years past. They are not worthy of recommendation.]

Eczema of Palms and Soles. JAMIESON (*Edinburgh Med. Journ.*, January, 1898) recommends pyrogallol in this condition and in psoriasis in the same locations. Thickened epidermis is first removed and the drug, deprived by oxidation of its toxic and irritant qualities, applied in the form of ointment (gr. v-xxx to the ounce). It is to be rubbed in daily.

Therapeutic Notes.

Thiosinamin in Keloid and Cicatrix.—TOUSEY (*N. Y. Med. Journ.*, p. 624, 1897) gives as a result of his experience and that of others, these data:

1. Thiosinamin is a derivative of mustard oil, belongs to the amin group (urea), is crystalline and does not keep in watery solutions.

2. It is not germicidal, but has two useful properties: (a) its softening effect upon inoperable scars; (b) its disintegrating action upon the leucocytes. The corpuscular number sinks to one-third the normal and rapidly rises again to excess, the increase being maintained for forty-eight hours.

3. The drug is an active diuretic and aids in the absorption of fluid effusions. It may be given by the mouth in capsule or preferably, by hypodermatic injection. A ten-per-cent. solution in an equal part mixture of water and glycerin is used since it is bland and does not spoil. The full dose is 12-15 minims every three days, determined for each case.

4. The effect upon keloid is supposed to be due to cellular activity in the blood, and, as a result, of the connective-tissue cells, with disintegration and removal by vascular- and lymph-channels of the scar tissue.

5. The treatment carefully followed produces tonic effects; an overdose may cause nausea. No permanent injury has ever been caused. The absorption of fibrous tissue is permanent; reformation has not occurred. Thiosinamin is particularly indicated in corneal opacities of non-inflammatory character.

The Dangers of Potassium Chlorate.—It appears to be well worth while to reproduce the warning of the *Therapeutic Gazette* with regard to chlorate of potash in view of the multiplying cases of poisoning from it and its happy-go-lucky use in oral syphilis. *It is, next to the cyanid, the most poisonous of potassium salts.* It has a disintegrating effect upon the red corpuscles, producing a grave and rebellious anemia, perhaps accompanied by hemorrhage from mucous membranes and methemoglobinuria, and resulting, as in the following case, in death. A Viennese youth received a solution of the salt to be used as a gargle. By accident, he swallowed a portion of it and death speedily resulted.

Treatment of Hyperidrosis.—GAUCHER (*Journ. des Practitiens*, October 23, 1897) states that the best internal remedies for general symptomatic sweating are tannin, agaricin, atropin, and calcium phosphate. They are useless in idiopathic hyperidrosis. In the latter general tonic measures are indicated with astringent lotions of lime, tannin, borax, etc. When localized, as in the feet, baths with oak-bark decoction followed by a salicylic acid-chalk powder (3-4 per cent.) are useful. When bromidrosis is present, alcohol lotions containing an astringent and aromatic are indicated.

R.	Borax	3 v
	Tinct. Benzoin	3 ss
	Alcohol	Oj.

M. Naphthol, permanganate of potassium, or iron in solution may be tried.

Kava-Kava in Genito-Urinary Disease.—LESLIE PHILLIPS (*Edinburg Med. Journ.*, August, 1897) found the drug of use in the treatment of acute gonorrheal epididymitis. No local treatment was given. In three days pain disappeared, and a week later the swelling had almost subsided. Kava-kava proved inefficient in acute gonorrhea alone, in "spermatorrhea" and in chronic cystitis; its effect was evanescent in gonorrheal rheumatism.

Editorial Notes.

AMERICAN DERMATOLOGICAL ASSOCIATION.—The Council has selected as the subject for open discussion, "Lupus Erythematosus." First, its etiology and pathology; to be presented by Dr. A. R. Robinson of New York. Second, its amenability to treatment; to be presented by Dr. J. C. White of Boston.

AMERICAN MEDICAL ASSOCIATION.—The Section on Cutaneous Medicine and Surgery will open its session at Denver on June 7th and close on June 10th. The chairman is Dr. A. W. Brayton of Indianapolis, and the secretary, Dr. T. C. Gilchrist of Baltimore, to whom titles of papers should be sent. It is entirely possible for members to attend both American meetings and it is hoped they will not fail to do so.

GERMAN DERMATOLOGICAL SOCIETY.—The Society, through its President, Dr. Wolff of Strasbourg, has extended to the members of the American Association an invitation to be present at its sixth annual congress to be held in Strasbourg on May 31st, June 1st and 2d, dates which conflict with those announced for the latter. The chief topic for discussion is "Acne, Its Etiology, Pathology, and Treatment." Much work of interest is promised.

NEW YORK SKIN AND CANCER HOSPITAL.—On March 5th the Hospital's new building at Nineteenth street and Second avenue was opened with much ceremony, Drs. Jacobi and Bulkley making addresses. We have at last a skin hospital worthy of this great city and country. Sixty beds are provided in the new fireproof structure, a large out-patient department, private rooms, operating-theater, baths, and every modern improvement.

DEATH OF PROFESSOR SCHWIMMER.—Another of our foreign colleagues, eminent in dermatology and syphilology, has passed away. Ernst Ludwig Schwimmer died in Budapest on February 25th, after a short illness. He was in his sixty-first year, covered with the great honors his faithful, earnest work had brought him from his government. He was director of the Institute for Dermatology, founder and president of the Hungarian Dermatological and Urological Society, and physician to St. Stephan Hospital. He has been quoted enough in these pages to make further comment unnecessary. In the name of Americans, we offer sincere condolence to his family

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Original Communications.

A CASE OF MULTIPLE IDIOPATHIC PIGMENTED SARCOMA.

By GROVER WILLIAM WENDE, M.D.,
Instructor of Dermatology, University of Buffalo.

THE case here reported came under my observation in September, 1897. The patient was presented and the substance of this report was read before the meeting of the Medical Association of Central New York, held at the Ellicott Club, in the city of Buffalo, October 19th, and at the meeting of the Pathological Section of the Buffalo Academy of Medicine, November 16th. The patient was originally referred to me by Dr. Bernard Cohen, with the subjoined history:

Mr. — is forty-five years of age, a native of New York City, by occupation a tailor, of spare and sinewy build, and apparently well-nourished. He is swarthy of countenance, with dark hair and eyes. His father died of influenza at the age of seventy-two; his mother is still living at the age of seventy-five; and he has three brothers and two sisters, all in excellent health. As far as known, no member of the family, near or remote, was ever affected with any form of skin disease. He disclaims all indulgence in vices or excesses. His style of living has been a modest one and his habits have been regular, including a close application to work. There is no evidence of syphilis. He is married and has five healthy children. The only serious ailment of his life is the one from which he now suffers. It was in May, 1896, when he sought relief by consulting Dr. Cohen for pain in the right ankle and a feeling of distress which emanated from the stomach. The doctor attributed his

condition to certain spasms due to auto-intoxication. The direct symptoms were coated tongue, large epigastrium, pain, and irregular movements of the bowels. Occasionally there was some prostration due to enervation. The urine was repeatedly examined and the color, odor, reaction, and specific gravity were generally found normal; however, the sediment, consisting largely of the earthy phosphates, was increased. Neither sugar nor albumen was detected; indican frequently occurred in an unusual amount. At the first visit of the patient Dr. Cohen observed that a section of the skin over the inner surface of the right foot presented a number of peculiar hard, red and painful nodules which had a tendency to grouping. The pain has since continued. The initial spot at one time affected the deeper structures of the skin and underlying tissue to such an extent as to produce a resemblance to elephantiasis. Upon absorption, probably due to the treatment received, the swelling gradually decreased and at last partially disappeared, resulting in a depression of the inner half of the plantar arch, undoubtedly due to relaxation of the plantar ligaments, tendons, and fascia, leaving the patient lame and flatfooted. A fortnight later the doctor discovered several nodules situated on the floor of the nose, which were oval and quite firm to the touch. As many as eight of these have been removed during the past year. Two months after the appearance of the original lesions the disease manifested itself upon the index-finger of the right hand in the form of circumscribed spots under the epidermis, which gradually coalesced and spread over the greater portion of the hand.

The special remedy employed in the case was arsenic, in the form of Donovan's solution.

I first saw the patient on September 2d of the present year, at which time his condition was somewhat changed. He had lost sixteen pounds in weight, his complexion was more sallow, the liver and spleen were slightly enlarged, and there was constant pain in the epigastric region. The lesions were limited to the hands and feet, except a few small nodes which appeared in the nasal cavity. The lymphatic nodes were not enlarged.

The manifestations found upon the right hand consisted of a dense infiltration exhibiting a dark violaceous hue, which seemed to be composed of numerous small compacted nodules located upon the dorsum and covering an area of about 7 centimeters. The backs of the fingers were equally involved. Upon the palmar surface the space affected was not quite so large, measuring $5\frac{1}{2}$ centimeters. The first, second, and third fingers were implicated in the distribu-

tion. Upon the left hand, covering the upper and outer portion of the thenar eminence, existed an irregular patch 5 centimeters in diameter. A similar patch occupied the lower half of the little finger, and was joined to one triangular in shape and measured 6 centimeters in its widest part. Upon the palmar surface, as well as the anterior surface of the left forearm, were four patches, varying from 1 to 1½ centimeters in diameter. At times the infiltration was apparently so great as to crowd the fingers apart and to interfere

FIG. 1.



with manipulation. Later this condition would experience a respite, when the infiltration would subside to such an extent as to render the movements of the hand and fingers comparatively easy.

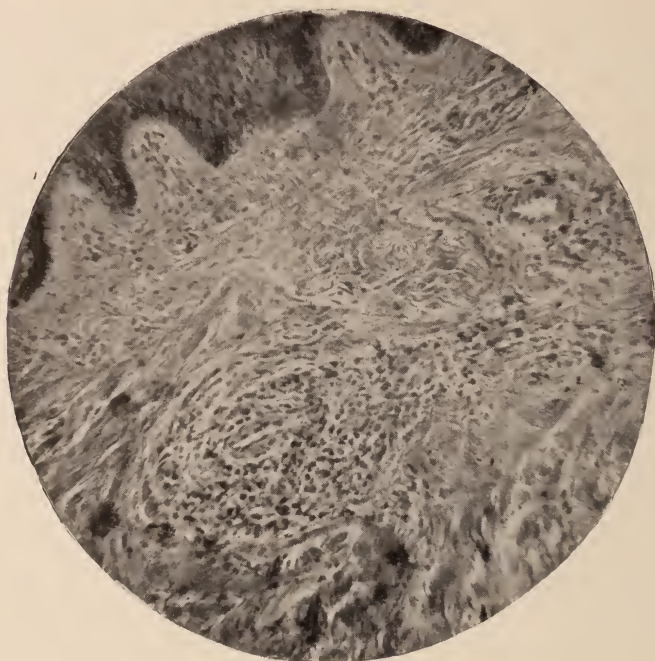
Upon the right forearm were a few small lesions, and upon the anterior surface of the corresponding arm, three inches above the elbow-joint, was a pigmented spot having a diameter of 1 to 1½ centimeters and revealing more or less infiltration.

Over the inner malleolus of the left foot a large equilateral patch of triangular shape pervaded the exterior, which was pigmented on

the dorsal side, its base running parallel to the plantar surface, its sides measuring in length about 12 centimeters, and its diameter measuring $3\frac{1}{2}$ to 4 centimeters.

A patch having an area of about 2 centimeters was located on the skin over the posterior extremity of the great toe, which patch contained five or six small spots of pigmentation in the border of the tarsal side. Below the external malleolus another triangular patch occupied the surface and extended backward upon the heel. Its lateral borders were 7 centimeters in length and its base measured 9

FIG. 2.



Magnification x 160.

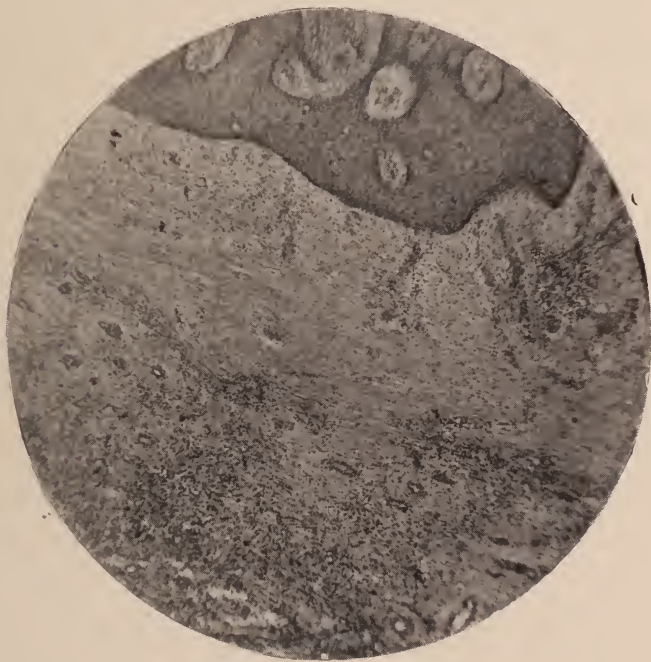
centimeters. Pigmentation in the spot was clearly discernible. Two small lesions could also be seen immediately above the right knee.

The left foot, on its inner surface, was almost entirely covered with a band-like patch, which spread anteriorly over the toes and backward to the tarsometatarsal articulations, measuring 14 centimeters in length and from 1 to 4 centimeters in width. Anteriorly over the dorsum and ankle-joint, and extending upon the leg, were nine distinct and separate nodes, varying in size from $1\frac{1}{2}$ to 2 cen-

timeters. Below the inner malleolus was recognized an area measuring from 4 to 6 centimeters. More recently there appeared on the lobe of the left ear a single nodule, red and transparent, about half a centimeter in diameter.

A number of pieces were excised from different localities for microscopical examination, and care was taken to include, as far as possible, the various stages and ages of the new formations. The portions removed were first fixed in alcohol and subsequently embedded and cut in collodion. The sections were stained by hema-

FIG. 3.



Magnification x 48.

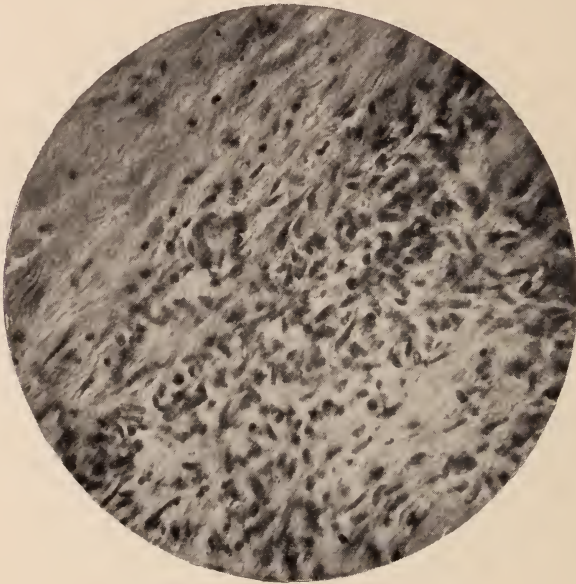
toxylin and eosin. Some of the specimens submitted to examination were taken from the inner surface of the right foot, where the changes in the structure of the skin were first observed by Dr. Cohen, and which, at one time, were considerably thickened. Those taken from the hands were from six to twelve months old and were located on the dorsal surface. Two specimens were removed from each hand. The examination of the sections showed that in the nodes on the right hand the epidermal layer was apparently normal and that no perceptible change had taken place in the structure of

the papillæ, while the blood-vessels lying between the epidermis and the subcutaneous tissue were somewhat enlarged and engorged with blood. Here and there a deposit of spindle-cells, arranged in the form of nests, appeared just above the subcutaneous connective tissue, as represented in Figure 2.

The sections made from the tissue taken from the left hand showed that the microscopical features were similar to those discovered on the right hand. The tissue removed was taken from nodes less than one year old.

The pathological changes existing on the inner surface of the

FIG. 4.



Magnification $\times 320$.

right foot were more pronounced and more typical of sarcoma. A section taken from this region, as represented in Figure 3, showed a deformity of the various layers of the skin beyond that discovered in those previously described, the epidermal and papillary layers being the ones especially involved. In the right portion of the upper part of the section was observed a decided thinning of the epidermal layer, with a virtual obliteration of the papillary layer, the result of the formation of a large nest of neighboring spindle-cells, while in other portions of the same section the contour of the papillæ was found to be essentially normal. The bordering layer of connective tissue was somewhat thinned, but unchanged in character; however,

in the upper portion of the corium the inception of the nests so characteristic of the disease could occasionally be detected. These, although insignificant, were invariably embedded in the hyperplastic connective tissue, and increased in dimensions as they approached the stratum subcutaneum. The nest occurring where the papillæ were absent was larger than those existing where the layer was intact, and showed a deposit of pigment granules. The nests were filled with embryonal cells varying in shape and size. The white spots and lines visible in the microphotograph represent cross sections of blood-vessels found in and near the subcutaneous tissue, many of which were newly formed, while the preexisting ones were augmented in size, engorged with blood, or ruptured in places producing extravasations. This accounts for the peculiar and marked discoloration of the skin surface.

The deeper portions of the tumor made it manifest either that the nests had increased in number and size, and that the walls of the newly formed blood-vessels were conspicuously thin, or revealed an active and well-defined proliferation of the endothelium, causing an obstruction in the blood-channels. A marked pigmentation was everywhere recognized; it was especially discernible in the cell-nests.

Figure 4 represents a higher power of Section 3.

An examination of the blood taken from the patient on October 10, 1897, gave the following results: Specific gravity, 1065; hemoglobin by Fleischel, 75 per cent.; number of erythrocytes, 3,900,000 to the cubic millimeter; number of leucocytes, 4697. The proportions of the different forms of leucocytes were: Polynuclear neutrophiles, 75.75 per cent.; large mononuclear, 12.12 per cent.; lymphocytes, 12.13 per cent.; eosinophiles, 0. Subsequent blood counts showed but a trifling variation from the computations first established, with a slight tendency toward improvement in the condition of the blood.

The treatment of this disease consists chiefly in the internal administration of arsenic. In the case under consideration the arsenic used was in the form of Fowler's solution, combined with tincture of iron, dilute hydrochloric acid, and extract of malt, administered in the hope that the depleted condition of the patient would thereby be more readily relieved and his strength increased. Since September 20th the arsenic has been administered subcutaneously, according to the plan advised by Köbner. At the present time the patient is daily receiving 7 drops of Fowler's solution, hypodermically, in 12 drops of distilled water.

Kaposi believes that in this form of disease the prospect of decided benefit from arsenic or any other remedy is very remote. Hyde, however, in the last edition of his treatise on diseases of the skin, states that a patient whose hands were completely relieved by the hypodermic use of arsenic was shown at the International Dermatological Congress which convened in London in 1896, Kaposi himself having verified the diagnosis. This is in accordance with the results obtained by Köbner, who not only strongly recommends this remedy, but was the first to employ it hypodermically in the treatment of sarcoma. Excellent results have also been reported by various other authors of high reputation, notably Lassar and Shattuck. Encouraged by these reports I decided, in the present case, strictly to follow Köbner's plan, which is described in the *Berl. klin. Wochen.*, No. 2, 1883. Even my brief experience in the case here reported gives me the certain knowledge of diminished tissue changes, and is in harmony with the theory of Köbner, that improvement in multiple idiopathic pigmented sarcoma follows the hypodermic administration of arsenic.

In concluding this paper, I desire to express my special thanks to Dr. F. C. Busch, who has kindly made the necessary blood examinations and to whose skill the accompanying microphotographs are due.

AMPUTATION OF THE PENIS; DESCRIPTION OF A NEW TECHNIC.

By RAMON GUITERAS, M.D.,

Professor of Anatomy and Operative Surgery in the New York Post-Graduate Medical School.

IN this short paper it is my purpose to speak simply of anterior operations, and not the so-called extirpation where the whole organ is removed and an urethral orifice is made in the perineum.

Many methods of performing this amputation have been devised, which tends to show that, although the operation is a simple one, surgeons are not as yet satisfied with the results.

These operations differ principally in the methods advocated of making the flaps, and in the instruments used: In the first instance some operators recommend the circular, the anteroposterior, or side flaps, while others have advised no flaps at all, excepting what can be obtained from the redundant tissue. In the second instance amputation is performed by means of the ligature, the ecraseur, the galvanic cautery, the galvanic ecraseur, or the knife.

Many authors have written upon this subject, among whom are Sir William Ferguson, Pearce Gould, Bonner, Erichsen, Humphrey, Earle, Teale, Demarquay, Hilton, Treves, Bryant, Stimson, Bell, and others. Most of these surgeons seem to agree upon one point, and that is that the urethra and the skin should be allowed to remain longer than the corpora cavernosa. They have not, however, mapped out any systematic operation, and for this reason it is my purpose to outline the one which we have been in the habit of teaching at the Post-Graduate School during the last few years.

Before entering into this description it might be interesting to consider briefly the principal difficulties attending this operation that make it so unsatisfactory. They are:

1. Hemorrhage.
2. The retraction of the orifice of the divided urethra within the stump.
3. The narrowing of the orifice by the contraction of the superficial tissue.
4. The wetting of the wound by the urine.

To overcome the first of these, namely, hemorrhage, it is necessary to tie a rubber band or an elastic catheter about the base of the organ until the amputation has been completed, when the dorsal arteries and those of the corpora cavernosa should be caught and ligated with catgut. Any further hemorrhage can be controlled by hot water, peroxid of hydrogen, and the pressure made by the dressing on the flaps.

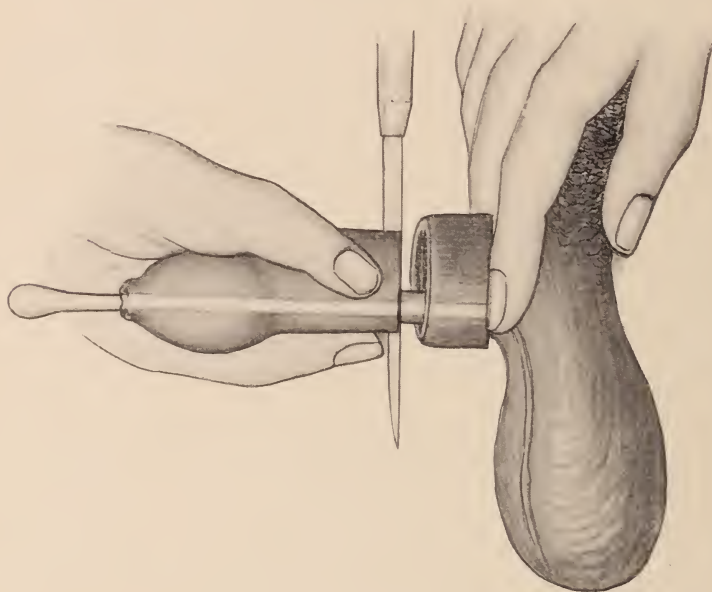
In regard to the second of these difficulties—the retraction of the orifice of the urethra into the stump—this can be guarded against by cutting the urethra at a lower point (nearer the meatus) than that where the penis is amputated. This is quite generally advocated, and it appears to be the general consensus of opinion that one-half an inch is the excess in length to be allowed.

The third difficulty is the narrowing of the orifice by the contraction of the superficial tissue. This is probably the most serious obstacle that the surgeon has to contend with, and operators often try to overcome it by slitting up the lower wall of the urethra and then stitching its mucous membrane to the skin. This certainly makes a large orifice, but the urethra above the point to which it has been incised is more or less distorted, so that a stricture is liable to occur there, as is the case with most other devices that have, up to the present time, been resorted to. Such a stricture or contraction is even worse than a simple contraction of the orifice, as it extends half an inch or more into the anterior urethra. It seems to

me, therefore, that if the end of the cut urethra protrudes sufficiently and is then well united with the adjoining skin, a better formed meatus will result, and if a stricture of the orifice does take place it can easily be treated by a meatotomy, followed by a dilatation, as in any other case of contracted meatus.

In regard to the fourth difficulty, that is, to the wetting of the parts by the urine, this is a hard matter to remedy, and always interferes with the healing and union of the approximated edges. The best way of overcoming that difficulty is by means of a soft-rubber catheter, which should be passed into the bladder and allowed

FIG. 5.



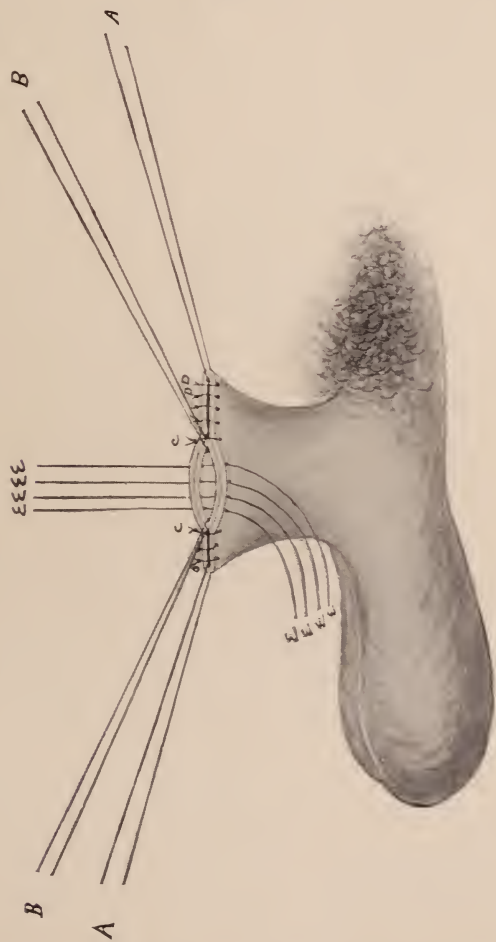
to remain there for several days. A retained catheter is, however, in every instance objectionable, as independent of the danger of wetting the part with the urine and the urethral fever it may occasion, the pressure it exerts upon the united surfaces tends to cause a slough about the stitches. It is, therefore, hoped that some method will soon be discovered which will supplant that of catheter-drainage in these cases. If any urine does succeed in wetting the united surfaces it should be immediately washed away and the parts cleansed with a boric-acid solution.

The method of operating which I am about to describe presents no new features when considered in toto, but is, I think, of a more care-

ful technic than any which has been described heretofore. It is, briefly, as follows:

The parts, having been thoroughly cleansed after the methods of to-day, a rubber band or catheter is tied about the base of the penis, and a circular incision is made through the integument of the

FIG. 6.



organ at a point below the growth where it is healthy. The skin is then dissected back for three-quarters of an inch, thus making a flap, which is rolled upward toward the base of the organ. A sound, about a number 20 (French) in size, is then passed into the urethra, and held by an assistant in such a manner that the penis is at a right angle to the body.

The blade of a straight bistoury is then inserted with the cutting edge pointing upward at the point to which the flap has been rolled, and is worked in between the urethra and the corpora cavernosa until it comes out at a corresponding point at the other side. The blade is then turned toward the corpora cavernosa and is made to cut through them. The corpora cavernosa are then taken between the fingers of the left hand and traction is exerted upon them while they are being dissected away from the urethra for the distance of one-half an inch. The cutting edge is then turned toward the urethra and the sound, having been withdrawn, it is cut through at this point (see fig. 5).

Thus we will see that the operation, as far as it has advanced, consists of an amputation through the anterior part of the organ in such a way that the stump or divided corpora cavernosa has an urethra half an inch longer than itself, and an integumentary flap three-fourths of an inch longer.

The two dorsal arteries and the two arteries of the corpora cavernosa are then caught and ligated with fine catgut; also, the small artery of the septum, if present, and any oozing of blood is controlled as well as possible by peroxid of hydrogen or hot water.

The margins of the cut integument at the upper and lower surfaces of the organ in the median line are then caught with the thumb forceps, and traction sutures are passed through each of them at these points, and held by assistants, as in figure 6. A. A.

The urethra is then caught in the same way above and below the median line, and traction sutures are also passed through it and held held by assistants in such a manner that the middle of the cut surface of the urethra corresponds to the junction of the lower and middle third of the cut surface of the integument, as in figure 6. B. B.

A fine silk suture is then passed through the integument and urethra at each extremity of the canal, passing entirely through the walls of the integument on either side, but only through the walls of the urethra and not through its lumen. These are then tied, thus holding the urethra and skin in place in the relations already mentioned. (Fig. 6. c.c.) The integument above and below the urethra are then united by interrupted sutures. (Fig. 6. dd.)

After this, four sutures of fine silk are passed through the integument and the urethra, piercing the lumen. (Fig. 6. ee.) They are then pulled up in the middle and tied on either side. (Fig. 7. ee.) Thus we will see that the skin and urethra are

held together by ten sutures, four on each side and one on each extremity, well placed with thorough approximation.

The parts are then washed with sterilized water and the traction sutures are withdrawn, thus leaving a stump as in figure 7. A sound is then passed through the new canal into the bladder, after which a No. 10 French catheter is passed into the viscus and allowed to remain there for a few days.

FIG. 7.



The wound is then dressed with iodoform gauze and the catheter is held in place with a piece of adhesive plaster attached to the pubes. Extirpation of the inguinal glands should also be made in cases where these can be felt. The chain of glands implicated, which are found in these cases, are those of the horizontal and vertical sets.

23 West Fifty-third street, New York City.

IMPETIGO CONTAGIOSA.

By HENRY G. ANTHONY, M.D.,

Professor of Skin and Venereal Diseases, Chicago Polyclinic.

DURING the past year 50 cases of impetigo contagiosa have come under my observation, of which 41 were of the ordinary, 6 of the serpiginous and annular form, and 3 impetigo contagiosa bullosa. This is a larger number of cases of this disease than I have ever before observed in Chicago during the period of one year.

Most of these patients resided in that quarter of our city which is known among Chicagoans as the North Side. There was no tendency to spreading of the disease in any special street or among the children of any given school. The cases were scattered over an area of at least five square miles. The disease was not observed exclusively among the lower classes, as is generally the case, and a larger number occurred among adults than is usual. Two cases only were seen in women, both in the lower walks of life, while among men 10 cases were observed, all of them of the better class; 8 of these were of the ordinary form, and 2 of the annular form. A few days ago I was consulted by a barber, who desired instruction as to how he could best avoid spreading the disease, stating that several people had complained that they had contracted the disease in his shop, and that unless further infection could be avoided his business would be ruined. I had examined some of these cases. These facts, together with the fact that the disease in nearly every one of these adult cases appeared shortly after being shaved in a barber-shop, suggests the thought that the barber-shop is responsible for the spread of the disease among adult males of the better class.

Our forty-one cases of the common form present few conditions of more than ordinary interest. The eruption in one case was limited to the scalp, affecting an area the size of a cent piece, no pediculi capitis or their nits being present. One case, a child three years, had the ordinary form on the chin, together with lesions on the mucous membrane of the mouth, which were not aphthous, but which greatly resembled syphilitic mucous patches; they had appeared shortly after the chin lesions, no syphilitic lesions on other portions of the child's body, no history of syphilis in the child or its parents. Scrapings from these lesions contained staphylococci, but no *oidium albicans*; they healed promptly under treatment with

peroxid of hydrogen. All of these cases yielded readily to treatment with unguentum hydrarg. ammon. (grs. x to $\frac{3}{4}$ i).

The Serpiginous and Annular Form.—This is reported by Eastern writers to be very rare in this country. Was never before observed by us during the nine years we have had the material of the Chicago Polyclinic at our disposition.

Our first case of this variety was observed in April, 1897, our attention having been directed to the subject by Schamberg's article.¹ These six cases were all of them confined to the face and neck; two were adults. They were all seen when the disease had existed for at least one week.

In some cases there was a single ring, and in others from three to five annular lesions. The patches apparently began as pea-sized and smaller vesicopustules which ruptured, leaving a typical impetiginous crust, yellow, and sometimes having a stuck-on appearance. On removing these crusts an excoriated surface was exposed to view; these spread from the center to the periphery; the smallest ring-shaped lesions were larger than a split-pea, the skin inside the ring being very slightly hyperemic. The crusts were somewhat thicker, and usually of a darker color than those of the ordinary form. No rings were observed larger than a silver dollar. On removing the crusts from larger lesions we observed that the excoriation in some segments of the ring was deeper than in others, so that in from one-fourth to one-half of the ring the destructive process had extended sufficiently deep to constitute a superficial ulceration, while in other segments of the ring there would be present only an excoriation or even healthy integument. Where the lesions were disposed in the form of a half ring it was because the process had healed in the other segment of the circle.

In no case could I determine that the lesions had extended in a serpiginous manner. The spreading was always annular in character. On disappearing, these rings left no scar and no hyperemia. Scattered here and there among the rings were often a dozen or more papules, the summits of which were frequently covered by a pin-head-sized gummy crust. There was no folliculitis barbæ.

Microscopical examination of these crusts showed the same staphylococcus aureus we have been finding in our cases of the ordinary form. To control our microscopical findings we submitted one of our most typical cases to Dr. Maximilian Herzog, Professor of Bacteriology in the Chicago Polyclinic, who made careful examinations of the crusts and also cultures from them, finding only a staphylococcus.

As to the differential diagnosis, Duhring² says it must be distinguished from superficial pustulocrustaceous syphilides; such syphilides we have seen, but those sufficiently superficial to require consideration in this connection have been rare. They commonly extend far deeper. It is scarcely necessary to state that syphilis was excluded in all these cases.

Trichophyton infections also resemble this disease, but were excluded because of the microscopical findings and the fact that they are usually maculosquamous lesions, while in our cases the lesions were distinctly excoriations and superficial ulcerations. Tricophytosis is, moreover, quite rare in our clinic, although perfectly familiar to us in all its varieties, as we have seen many cases at the St. Louis Hospital in Paris, and at other clinics. These cases were also treated with hyd. ammon., but were more rebellious to treatment than the ordinary form, lasting in some cases six weeks.

The Bullous Form.—CASE I.—A girl three years old showed vesicopustules on the fingers, an impetigo crust in right groin, two unruptured hen's-egg-sized bullæ, and three which had been ruptured on abdomen. Her mother stated that the crusts had first appeared four or five days, and the bullæ two days before; she had made no application to the lesions. A brother of this patient, eight years old, had typical impetigo crusts on the chin. Patient recovered in ten days.

CASE II.—A baby one year old had had diarrhea and colic for two months; the skin eruption had existed for one month. It began on the chin and gradually extended over the body. The baby was dying at the time of our examination. On the fingers were a few vesicopustules, and on abdomen and chest an extensive eruption of ruptured and unruptured bullæ. On the face were a few impetigo crusts. Death in this case was due to intestinal infection.

CASE III.—An infant, thirteen days old, presented an eruption extending from the orbits to the clavicles, and from ear to ear, consisting of disks silver-dollar sized and smaller, the surfaces of which were excoriated, dry, and not covered with a crust. To the borders of these disks were attached here and there shreds of epidermis. The lesions were obviously ruptured bullæ; the same lesions were observed at the bend of the elbow on the left side, and also on the buttocks. The fingers also presented similar lesions. The only unruptured lesion was a single vesicopustule on the forehead, the contents of which were examined with negative result by Dr. A. J. Zook, through whose courtesy I was given an opportunity to examine the case. The mucous membranes of the mouth and nose

showed no lesions; the infant did not have snuffles; the palms of the hands and the soles of the feet were free. The mother had nine other children, all healthy; she had miscarried in the eighth and ninth pregnancies in the sixth and seventh months respectively. Neither parents nor the other children presented lesions of syphilis. No syphilitic history in the father. The mother stated that one of her boys had had "scabs" on his face about one month before the birth of the baby, and that furthermore a baby had just died in the neighboring house of an eruption which seemed to be the same as that from which her baby was suffering.

She stated that the eruption first appeared on the chin as vesicopustules, which soon became bullæ and ruptured. The infant was greatly emaciated. Temperature, 104° F. It died about six hours after our examination from inanition, caused by inability to take nourishment, as the eruption about the mouth rendered the lips stiff and hard, and caused pain on motion exactly as is observed in the "Harlequin Fetus."

This is undoubtedly an example of what some writers describe under the name pemphigus neonatorum, and what Kaposi³ calls pemphigus contagiosus, but I am in perfect accord with those who regard such cases as either trichophyton infections or impetigo contagiosa. The bullæ develop independently in impetigo contagiosa, while in trichophytosis they develop on the border of the ring. I have observed that all forms of impetigo contagiosa develop more rapidly in infants than in older children, and I do not regard it as a trivial affection. I would advise physicians where the disease occurs in older children of a family, care should be taken to protect the baby from the infection, and on its first appearance in the infant it should be treated thoroughly and energetically. As the delicate skin of an infant does not always tolerate mercurials, I treat these cases when seen early by an application of Lassar's paste, and then cover them with an antiseptic dressing, often using collodion to hold the same in place.

In general we may say that the diagnosis of impetigo contagiosa presents no very great difficulty except in cases in which a generalized eruption follows vaccination. I have found an opportunity to study carefully one such case, in which the eruption was more extensive than in either of Elliot's cases.⁴

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465 DEARBORN AVE.

Clinical Notes.

A CASE OF EXFOLIATIVE DERMATITIS FOLLOWING TYPHOID FEVER.

By ALFRED E. DIEHL, A.M., M.D.,

Professor of Dermatology, Niagara University; Dermatologist to the Erie County Hospital; Dermatologist to the Sisters of Charity Hospital; Dermatologist to the German Deaconess Hospital, etc., Buffalo, N. Y.

BY the name exfoliative dermatitis we understand a subacute or chronic affection of the skin characterized first by the appearance of patches of redness which rapidly spread over the whole skin surface, followed soon by a copious desquamation of the epidermis, either as fine branny flakes or as large scales. This term exfoliative dermatitis was first given by Erasmus Wilson, although Devergie had previously described the disease. The further history has been fully given by Dr. Corlett of Cleveland, O.; therefore nothing more need be said.

The name exfoliative dermatitis is confusing, as several different affections have received the same appellation. Thus, for example, Dr. Buchanan Baxter points out the mode in which several varieties of this affection originate, as follows:

1. Exfoliative dermatitis supervening in eczematous affections.
2. Exfoliative dermatitis supervening in psoriasis.
3. Exfoliative dermatitis supervening in pemphigus.
4. Cases of primary exfoliative dermatitis.

Cases coming under the head of the first three subdivisions should not be considered as cases of exfoliative dermatitis, as the exfoliation is but a further development of a primary disease. The disease described by Hebra as pityriasis rubra seems to be a much more severe affection than the latter, although closely allied to it.

The description of the following case, which I consider to be one of primary exfoliative dermatitis, is rather interesting, partly because of its rarity, and partly because of its following an attack of typhoid fever.

J. S., male, aged eighteen years. Family history was negative, both parents being alive and in good health; one brother died of epilepsy at the age of ten years. The patient himself had never been ill. On June 20, 1897, he entered the Erie County Hospital, suffering from a pronounced attack of typhoid fever. On July 20th, during convalescence, a rash consisting of minute pin's-head sized bright

red papules developed on both wrists, spreading over the dorsal surface of the hands and as far as the elbows. It remained localized on these situations for three days, when the same process developed about the ankles, extending over the dorsal surface of the feet and as far as the knees. One day later it developed about the buttocks, extending to the shoulders, and finally covered the entire skin surface, the face and head being the parts last involved. On the face the eruption was most marked on the forehead. On July 28th the eruption was at its height, and desquamation began first on the hands and forearms, then following in the order in which the eruption appeared.

The desquamation was now the most striking feature and was very abundant, several handfuls of scales being removed from the sheets each day. On the palmar and plantar surfaces the epidermis came away in large flakes, leaving the surface underneath smooth and pink in color, while over the general surface of the body desquamation took place in the form of fine bran-like scales. The head in particular desquamated very freely, the hairs became brittle, lost their natural gloss, and came out plentifully. The free edges of the nails were lifted by the accumulation of epidermis, but the nails did not fall off as sometimes happens. On August 5th the eyelids became much swollen and the conjunctivæ injected. During the desquamation several blebs appeared, one on the right arm about the size of a half-dollar, which was not tense but flaccid, and when opened a straw-colored fluid exuded. There were also several blebs on the plantar surfaces of the feet which exhibited the same characteristics as that on the arm; when opened they rapidly healed over, desquamation taking place as on the unbroken skin surfaces.

Throughout the course of the affection, while under observation, there were no particular subjective symptoms. Itching was absent. The patient complained at times of a slight feeling of constriction, and sometimes of a sensation of heat and burning. The skin itself was dry, there being little or no perspiration; it presented a slight degree of infiltration, and was of a dirty, unhealthy color.

The patient was at first ordered inunctions of lanolin and vaselin, but this was discontinued on account of an intolerable burning and itching. Boroglycerid was then ordered, and under its application the desquamation gradually lessened, and at the time of the discharge of the patient he was markedly improved.

Unfortunately, he lived in another section of the country, therefore, it was impossible to carry out any further observations on this extremely interesting case. I would say, before closing, that the pa-

tient never showed any constitutional effects of the disease; there was never any rise in temperature, and he went on through his convalescence in a thoroughly satisfactory manner.

A CASE OF FAVUS OF THE NAILS.

By FRED. J. LEVISEUR, M.D.,
New York.

FAVUS of the nails is a rare affection, but perhaps not so rare as is stated in most of the text-books, for some cases are, possibly, not recognized by the physician, or, if recognized, are not reported. It is *a priori* a surprising fact that the nails escape infection in the majority of cases, though they are continually exposed to contagion through the process of scratching, and the fungus may find an ideal resting place under the free border of the nails. The following case was sent to me by Dr. F. W. Lilienthal of this city:

Miss K. K., a native of Russia, seventeen years old, came to this country twelve years ago. At that time she suffered from an affection of the scalp, which, according to her own description, was very likely favus. When she was thirteen years old her scalp improved very much and was almost well for two years, but got worse again during the last two years. A year ago her nails became affected, starting with the index-finger of the left hand. In a short time the disease showed itself on the fourth finger and the thumb of the left hand, and finally on the nail of the fourth finger of the right hand. The nails have the appearance as if a foreign substance had penetrated from the front backward, lifting the nail in an irregular manner from its bed and turning its horny layer upward. The latter showed no macroscopical changes, except a slight change in color. It was easy to scrape away the yellowish brown accumulations, exposing cavities which, on two fingers, reached almost to the root of the nails. Mycelia and spores of the achorion were found in the scrapings. The scalp of the patient shows unmistakable signs of an old favus, particularly the characteristic slightly depressed bald spots.

In almost all the cases of favus of the nails reported in literature evidence of the disease on other parts of the body, either in the present or past, was always found. In this way the diagnosis which otherwise would depend entirely on microscopical examination is rendered less difficult. In the cases of trichophytosis of the nails which came under my observation it was noticeable that the disease had first attacked the nail from the back or from the sides, and the horny layer was primarily affected, showing a furrowed, pitted, and

brittle condition. These conditions are also occasionally met with in eczema and psoriasis. In syphilis the nail, if affected, becomes at first dull in color, or shows numerous white spots; later on it becomes thin and soft in the region of the lunula, and finally its entire surface is dry, lusterless, and furrowed. This condition, called *onychia sicca*, is, according to Fournier, not rare, especially in cases with extensive alopecia, or affections of the mucous membranes.

Another form of syphilitic onychia, mostly seen in women, is

FIG. 8.



characterized by brittleness of the free borders of the nails, which break easily.

As regards treatment of favus of the nails, as much as possible of the diseased nail and accumulations underneath should be removed by cutting and scraping. After this has been done, I recommend that a strong parasiticide—carbolic acid, for instance—be applied, and finally, in order to protect the patient from auto-inoculation, the affected area be painted with collodium, or tincture of benzoin con-

taining sublimate (one per cent.). This treatment must be repeated and kept up for some time, taking into consideration the great obstinacy of the disease.

640 Madison avenue.

Correspondence.

ANTIPYRIN AS A LOCAL ANESTHETIC.

EDITOR JOURNAL OF GENITO-URINARY AND CUTANEOUS DISEASES:

SIR:—I desire to call attention in this preliminary note to what promises to be a new departure in genito-urinary surgery. I have used as a substitute for cocain in a number of cases of urethrotomy, a ten-per-cent. solution of antipyrin in one-per-cent. solution of carbolic acid. As far as my observations have gone, the solution appears to be quite as efficacious as cocain. In meatotomies, where, as is well known, the skin incision is usually painful, I have found even less complaint than where cocain is used.

The advantages of the method as compared with cocain are:

1. Absolute safety.
2. Freedom from constitutional effects.
3. Distinct lessening of hemorrhage, both before and after operation.
4. Less disturbance of nutrition of the wounded tissues.

I have thus far only used a ten-per-cent. solution of antipyrin. I have not experimented, as yet with a simple aqueous solution. The solution should be fresh, and should be allowed to remain in the urethra for ten minutes, as a rule. I have, however, begun cutting within five minutes after injecting it. I would suggest the antipyrin solution for nose and throat work. It will at least make a safe foundation for further anesthesia with cocain. Absorption of the cocain and hemorrhage will both be inhibited, thus adding greatly to the safety of operations. Unlike cocain, the styptic effect of antipyrin is not followed by vascular relaxation and often almost uncontrollable hemorrhage.

Yours very truly,

CHICAGO, March 17, 1898.

G. FRANK LYDSTON, M.D.

Book Reviews.

Sexual Disorders of the Male and Female. R. W. TAYLOR, A.M., M.D.
New York and Philadelphia: Lea Brothers & Co., 1897.

This book marks a distinct advance in the study of these conditions. Modern work in this branch has so revolutionized old ideas that this book should find a ready welcome. It amplifies but does not replace Dr. Fuller's work with a similar title. While one may not agree with all the conclusions of the author, the importance of the work consists in the fact that it points out the lines on which investigations should be made, and proper methods of making examinations.

The author combats the theory that the seminal vesicles act in any sense as the storehouse for the spermatozoa, claiming that in post-mortem examinations made of these parts, where the seminal vesicles are found to

contain spermatozoa they probably got there through accident in the handling of the specimens, and yet he says on page 59 that "the seminal vesicles and ampullæ were examined post-mortem in ten cases with the purpose of finding out the condition and the composition and qualities of their contents." From these studies it appeared that the more nearly normal the sexual organs and functions are at the time of death the greater is the number of spermatozoa in the seminal vesicles and the ampullæ of the vas deferens.

In the chapter on Seminal Vesiculitis he makes no reference to the valuable work on this subject done by Dr. Fuller, though he describes the method of treatment advocated by the latter. He speaks of this disorder, moreover, as an extremely rare disease, which can hardly be a fair, unprejudiced statement.

On page 132, speaking of the prognosis of Fibroid Sclerosis of the Corpora Cavernosa, the author states that although these patients are permanently crippled in their sexual function, yet "they at least have the satisfaction of knowing that their trouble will not lead to malignant degeneration," omitting entirely to state that some of these cases have shown malignancy, and that the pathological study of this condition has been so slight that it is as yet on a very unsatisfactory basis.

The chapters on Sexual Disorders in the Female appear to be incorporated in the book to record the studies which the author has personally made in that department, rather than for any completeness with which they cover the subject.

On the whole, however, the author is to be congratulated on having given to the profession a very valuable book, and one which marks a new period in genito-urinary work.

G. K. S.

Society Transactions.

THE NEW YORK DERMATOLOGICAL SOCIETY.

TWO HUNDRED AND SIXTY-SIXTH REGULAR MEETING, HELD ON TUESDAY EVENING, DECEMBER 21, 1897.

DR. S. LUSTGARTEN, *President, in the Chair.*

A Case of Necrotizing Chilblain Lesions.—Presented by DR. C. W. ALLEN.

The patient was a man showing peculiar eruptive lesions on the hands and feet, which Dr. Allen said he had been forced to regard as a rare form of chilblain affection, though the usual features of erythema pernio are lacking.

At the onset of cold weather, and especially if the hands are washed in cold water, or there is unusual exposure to the cold or damp, a crop of small, erythematous spots appear upon both hands and feet, including, at times the palms and soles. These lesions soon become nodular, some appearing in the form of firmly embedded nodules beneath or within the skin, while others are much elevated above the surface. There is no itchiness at times, and at others this symptom is quite marked, or the lesions on the hands may itch and those on the feet not. Within the course of a few weeks or months a certain proportion of the lesions undergo central necrosis, at times leaving a deep pit, and if, as is often the case, a crust forms and prevents escape of pus, a severe, deep, and painful inflammation fol-

lows. The central crust is usually of the "set-in" or mortised variety, characteristic of *acne varioloformis* or *acne necrotica*; it remains for weeks *in situ*, and leaves a depressed cicatrix on falling. As the nodes disappear they take on a purplish hue which persists in a measure under finger-pressure, and some lesions have at times been actually hemorrhagic. Some nodules present a waxy appearance of their central part, and some look as though they were deep-seated pustules, but incision shows this not to be the case. The lesions come out in crops and do not extend above the ankles nor beyond the wrists. With the advent of warm weather they disappear. No treatment has so far had more than an improving effect.

The present attack began in November, after noticing that cold water in the morning produced actual pain in the hands. Some nodules soon became quite tender and a few suppurated, in addition to showing a deep, grayish necrotic process of very slow evolution. Some of the features suggest Brooke's *keratosis follicularis contagiosa*.

Dr. Allen said the condition was clearly one of *erythema papulatum* or *tuberculatum*, excited by cold, and succeeded by central necrosis. He referred to another instance of the same affection occurring in a native of northern Russia, which began two years before the patient came to this country. Dr. Allen saw him in his third attack, during the papulotubercular stage, the whole skin surface of the hands being of a dusky hue. The feet were likewise affected, and the history of the course pursued by the eruption in previous attacks corresponded with that of the case now presented. In the present case, Dr. Allen said, this was the fourth winter in which he had observed a recurrence of the affection.

In conclusion, the speaker said the case also recalled a peculiar affection of the arms in a woman presented to the Society some months ago by Dr. Elliot. He had himself observed two similar instances, one in a man, the other in a woman. In these cases there was no question of cold as an etiological factor, nor was any other cause to be made out. In one of his cases a deep, suppurating lesion on the arm had been followed by a severe lymphangitis.

DR. JOHNSTON said he had seen two cases exactly similar to the one shown by Dr. Allen, but in those instances the eruption was little dependent upon conditions of temperature, as it pursued its course in summer and winter, growing slightly worse in cold weather. In one case, which he saw at the Presbyterian Hospital, the lesions extended up as far as the elbows. Both of his patients were distinctly scrofulous and in one there was pulmonary involvement.

Dr. Johnston expressed the opinion that these cases were closely allied to the condition described by Hallopeau under the name of "innominate granuloma," which occurs in tuberculous patients.

Dr. Allen said that this patient's father and mother had had gout, and the patient himself had distinct nodules at times along the tendons of the hands and feet. It was possible, therefore, that gout was an etiological factor in the production of this peculiar eruption. There were no evidences of scrofula. Some years ago, however, he had had an attack of *acne* of a very aggravated type, from which large abscesses in the neck resulted.

A Case for Diagnosis: Lymphangioma or Angioma?—Presented by DR. H. G. KLOTZ.

The patient was a girl, twelve years old, with a peculiar, cyst-like swelling on the left side of the breast. The mother stated that she had not noticed the existence of the affection until last September, after the girl had been absent for several weeks in the country. Between the mamma and the sternum extending from the second rib outward and downward for

about two and one-half inches, there appears an elevation of the entire skin one-third of an inch above the surrounding parts, irregularly shaped and not well defined. The skin over the lesion does not show any pathological condition, but for a not very pronounced bluish tint. On pressure distinct fluctuation is felt, the fluid changing its position under the pressing finger but without any diminution of the volume of the swelling itself. There is no abnormal sensation present either spontaneously or on pressure. Evidently the protuberance is produced by a cyst, or a closed sack of a skin-membrane filled with fluid, probably originating from lymph-vessels, although the bluish tint suggests the participation of blood-vessels.

DR. J. A. FORDYCE thought the lesion was venous in character.

DR. E. B. BRONSON regarded it as a lymphangioma.

DR. LUSTGARTEN thought it was hardly possible to make a differential diagnosis between lymphangioma and a cavernous tumor. Both belong to the group of *nævi*, and show a tendency to increase at the age of puberty. This might account for the fact that in this case the lesion first became noticeable recently.

A Case of Pityriasis Versicolor.—Presented by DR. C. W. ALLEN.

The patient was a woman who had been under treatment for some time and the very extensive eruption had largely disappeared or become altered by treatment. Dr. Allen said he presented the case in order to illustrate a point which he has long recognized, namely, that in this affection, if the eruption is at all extensive, the lesions are apt to extend to the pubic region, where they are hidden by the hairs, and usually go unrecognized, and hence untreated, and frequently give rise to recurrences.

DR. ALLEN said it is not uncommon in his experience to see cases of pityriasis versicolor in which the lesions have extended to the neck, cheeks, and even the brow.

DR. KLOTZ said he had no doubt that Dr. Allen was right in claiming that the lesions in pityriasis versicolor often extend to the hairy parts of the body, particularly to the pubic regions, where they are apt to be overlooked in treating the case, and whence they soon begin to spread again. He thought we were indebted to Dr. Allen for calling attention to this point.

DR. BRONSON said he did not clearly understand whether Dr. Allen had intended to convey the idea that the eruption in pityriasis versicolor usually extended to the pubic region. He had always had the impression that patches only occurred there in cases where the eruption was very extensive.

DR. ROBINSON said he had seen many cases where the eruption was limited entirely to the groin, or involved the penis, scrotum, and thighs. The heat and moisture in this region are very favorable to the growth of the fungi.

DR. FOX said he had a photograph of a case where the eruption covered the pubic region and extended down the thighs to the popliteal space. The speaker said that in some cases of pityriasis versicolor the roughened skin may be entirely wanting.

DR. LUSTGARTEN said he had observed a number of cases where the eruption was limited to the pubes. The apparent pigmentation of the patches in this affection is due to the presence of the micro-organism; it is not deep-seated, and can be removed by chemical or mechanical means.

DR. ALLEN, in closing, said the only point he desired to emphasize was the importance of thoroughly examining the pubic region in these cases, as it is often the seat of a focus of disease to which recurrences are probably due.

ADJOURNED DISCUSSION OF CASES PRESENTED AT THE PREVIOUS MEETING
(Pages 144 and 145.)

Dr. Jackson's Case of Lesions on Both Palms.—Presented for diagnosis.

DR. FOX, who had photographed the case, said the lesions were precisely like those of psoriasis, and he would have made that diagnosis were it not for the fact that the eruption was confined exclusively to the palms, which are usually free in psoriasis.

DR. BRONSON said the case had reminded him of those reported by Besnier under the title of *keratoderma erythematosa symmetrica*.

DR. WHITEHOUSE referred to a patient who was treated for a long time at the Skin and Cancer Hospital for an affection of the palms which was variously diagnosed as syphilis, pompholyx, seborrheal eczema, and lichen planus. Later, small psoriatic lesions were found on the scalp, and a subsequent examination revealed a similar patch on one elbow. The speaker said that in the case referred to it was impossible to say whether the lesions on the palms antedated those on the scalp and arm.

DR. LUSTGARTEN said he was inclined to regard the case as one of symmetrical erythrodermia. On account of the age of the patient he thought the diagnosis of psoriasis could be excluded.

DR. JACKSON, in closing, said that a very close examination of this patient's scalp and body had failed to reveal any other skin lesions. The lesions on the palms are painful, and have kept on spreading in spite of various methods of treatment, including the administration of potassium iodid.

Dr. Allen's Case for Diagnosis: Lesion on the Arm, Following Infection, and Suggesting Erysipeloid.

DR. JOHNSTON said he did not think the condition bore any resemblance to erysipeloid. It was probably an infective lymphangitis.

DR. LUSTGARTEN said that while the lesion in Dr. Allen's case was probably the result of an infectious lymphangitis, he did not think it could be regarded as an example of Rosenbach's erysipeloid.

DR. ALLEN said he had not shown the case as one of undoubted erysipeloid, but simply as an affection strongly suggestive of the latter affection by reason of its manner of spread from a point of inoculation. He mentioned two cases of typical erysipeloid which had come under his observation—one in a fisherman, and the other in a butcher, and mentioned the almost magical influence which ichthyol seemed to exert.

Dr. Fordyce's Case for Diagnosis: Young Woman with Circular Ulcer on Right Breast.

DR. FORDYCE said he had seen the patient again about a month after he had presented her. The ulcer on the chest had healed entirely under applications of white precipitate ointment. She now has an ulcer on the palm which looks like a broken-down gumma. She also complains of nocturnal headaches. There is some notching of the upper teeth and the eyes show the remains of an interstitial keratitis. The speaker considered the case one of hereditary syphilis.

CASES PREVIOUSLY REPORTED.

DR. BRONSON said that he had on several occasions presented at the Society a woman with tuberculous glands in the neck and certain skin lesions on the face which were regarded as due to toxemia. This woman came to the New York Polyclinic, and after several operations for the removal of the diseased glands had been performed with temporary benefit after each operation, at the suggestion of Dr. J. A. Wyeth she had been sub-

jected to venesection, the effect of which was to produce a rapid disappearance of the cutaneous lesions. The eruption soon recurred, however, and she was again bled, about six or eight ounces of blood being removed, and again rapid improvement occurred, which lasted less than a week, however.

It was not expected, of course, that the withdrawal of six or eight ounces of blood would relieve the toxemia permanently, but by taking advantage of the temporary benefit it was hoped that the local measures would have a better chance of success. The result, however, did not encourage repetition.

DR. ALLEN said that some years ago, when methyl-blue was first introduced as a therapeutic agent, he had employed it with beneficial results in various forms of skin diseases. Recently he had again begun experimenting with it with very satisfactory, and, in some instances, surprising effects. For example, in the intertriginous forms of eczema, and especially in infantile intertrigo, he knew of nothing better. He has also employed it with success in syphilitic mucous patches and fissures of the lip. Also, in pruritus ani and in chancroids after cauterizing them with nitric or carbolic acid; in the latter cases it seems to take away the sting very quickly. Dr. Allen said he applies the methyl-blue either in the form of a five-per-cent. watery solution, or a three-per-cent. alcoholic solution with a little liquor potassæ added.

DR. FOX said he fully agreed with Dr. Allen that there was considerable therapeutic virtue in a number of the analin dyes. He had often employed a preparation of fuchsin in eczema of the legs with excellent results. These substances certainly have a decided effect upon chronic infiltrations and old skin lesions, as well as in some of the acute conditions. The chief objection to them is their color.

A Case of Generalized Vitiligo. Reported by DR. FOX.

The patient was a white man whose skin, with the exception of a small patch on the neck and another on the groin, was completely devoid of pigment. The loss of pigment had occurred gradually. The patient complains that his hands and face blister after the slightest exposure to the sun's rays. The color of the hair was unchanged.

DR. MORROW inquired whether the tendency to blister was not present before the onset of the vitiligo?

DR. FOX replied that it was not. The speaker said he had frequently noticed that the white skin of patients with vitiligo on the hands blisters very readily.

DR. MORROW said he had never noticed that the skin of patients with vitiligo was more prone to blister on exposure to the sun's rays than the normal skin. Such exposure may make the skin browner, but he did not think there was any marked increase in its sensitiveness to temperature changes.

DR. FOX said that cases of partial vitiligo, which are noticeable in the summer and disappear in the winter, should be distinguished from those cases where the loss of pigment is complete and the skin presents a milk-white appearance. In the latter class of cases the skin blisters very readily on exposure to the sun.

Tuberculin (T. R.).—DR. PIFFARD, in reply to a question regarding the value of the modified tuberculin of Koch, said he had recently seen some reports from Europe which were extremely unfavorable. It was stated that the new preparation not infrequently contained living tubercle bacilli.

DR. LUSTGARTEN said he had employed the new preparation in one case of tubercular lesions of the skin. The injections were well borne by the patient and produced practically no reaction, excepting after the first dose. The results were very encouraging for about three weeks, and then the

effects of the treatment seemed to cease and new lesions made their appearance. The speaker said that none of the modified tuberculin was to be obtained in New York at present.

DR. FOX said that in a case of lupus of the nose, which had been unsuccessfully treated by various methods, marked improvement occurred after a number of injections of Koch's old tuberculin. The patient had remained entirely well for several years, but recently there was a return of the lupous growth.

DR. LUSTGARTEN, in speaking of the value of animal extracts in general, said that some of them have undoubtedly come to stay. Thyroid extract, for example, has become indispensable in the treatment of myxedema, which, as has been shown experimentally, is a disease due to a lack of the secretion of the thyroid gland. The speaker could report a number of cases in which very distressing symptoms incident to the climacteric have been promptly relieved by ovarine; among these symptoms were hot flashes, followed by attacks of perspiration and itching of the genitals, general nervousness, etc., for which no local cause could be discovered. Spermine is another another animal extract which appears to possess some therapeutic value. Suprarenal extract had failed in a case of Addison's disease of the speaker—with which group, furthermore, belong sporadic cretinism, or infantile myxedema, and certain forms of lipomatosis associated with anemia. Dr. Lustgarten said he thought the old tuberculin of Koch possessed therapeutic value, and had been unduly neglected in the last years.

THE NEW YORK ACADEMY OF MEDICINE.

SECTION ON GENITO-URINARY SURGERY.

Stated Meeting, Held January 11, 1898.

Specimens of Vesical Calculi.—Presented by DR. JAMES PEDERSEN.

The first of the specimens that he had to present consisted of two calculi which the speaker removed from a patient on September 2d by median lithotomy. The patient was first referred to Dr. Bangs, but came under his care because Dr. Bangs was out of the city. The man was about sixty years of age. He was in fair general health and condition. For some time past several physicians had had him under observation and treatment for cystitis. The history that he gave pointed unmistakably to vesical calculi, and a searcher, which was introduced without the slightest difficulty, and almost painlessly, readily detected the hard calculi. At the hospital, when he undertook to do a litholopaxy (under ether) he was surprised to have the lithotrite—a full-sized instrument—slip into a pocket on the floor of the urethra, toward the right from the median line, in the region of the bulbomembranous junction. After many attempts he succeeded in avoiding the pocket. Seeing that the operation of litholopaxy, under these conditions, would be a long one, and that it might prove unsatisfactory, he decided to do a median lithotomy, and so get at the pocket at the same time. The patient made an uneventful recovery. On the seventh day he returned to the care of his physician in Brooklyn with instructions as to after-treatment. The calculi weigh 143 and 127 grains respectively; a combined weight of 270 grains.

The second specimen, removed by suprapubic cystotomy, was shown; it was removed a little over two years ago. The patient was about fifty years of age. He came into the hospital complaining of severe attacks of tenesmus, continuous pain in the bladder, and incontinence of urine. After removal of the calculus the upper edge of the wound was sutured and

siphon drainage established in the usual manner. He made a good recovery. When fresh, the specimen weighed 1505 grains, or 3 iij and 65 grains. Its weight now is 3 ounces, less 20 grains, or 1420 grains.

Pyosalpinx.—Presented by DR. A. PALMER DUDLEY.

The speaker presented to the Section three-quarters of both Fallopian tubes, which were removed from a woman, twenty-one years of age, who had been married three months. As a child, she had always been sickly, and had suffered from all the diseases of childhood. She matured at fourteen and was married at twenty-one. She had menstruated regularly, and there was no pain accompanying this function. Leucorrhea had begun at puberty, and, at times, had been very profuse. She had suffered from sick-headaches. She complained of inability to submit to intercourse. On examination, the uterus was found to be retroverted and bound down by adhesions in the pelvis. There was no history of gonorrheal infection, nor were there any evidences of it externally. He supposed that he had to deal with a simple case of retroverted and adherent uterus, and the speaker prepared to do a laparotomy for the purpose of bringing the uterus up into position. He found upon opening the abdomen that he had to deal with a double pyosalpinx. He amputated each tube, leaving one and a quarter inches of each; he did the phimosis operation upon the remaining portion of each leaving the tubes patent. Patient was operated upon one week ago and her highest temperature since then has been 100.2° F., and this followed the first movement of the bowels on the second day; the temperature then fell to 98.4° F., and has remained there since. There has been no tympanites or untoward symptoms. The interesting thing about the case is this: The tubes were sent to the laboratory to have cultures made, and learn if they were septic. Dr. Brooks attempted to make cultures but they failed to develop, showing that although filled with pus, they were not septic. Yet there were plenty of gonococci in the tubes.

DR. LAPOWSKI said that gonococci may not be found in the central part of the abscess, but they are present in large numbers along the inner wall of the salpinx, where circulation is active. This fact was brought out by Wassermann.

A Report of a Case of Hypertrophy of the Prostate Treated by the Galvanocautic Method as Devised by Bottini.

DR. LEONARD WEBER said that it must be at least ten years since he read Bottini's first communication relative to the use of the galvanocautery in burning grooves through the prostate for the relief of hypertrophy. It was neither received with enthusiasm nor with much faith, mainly because surgeons, as a rule, are not much inclined to use the galvanocautery in dark regions, and partly because the author failed to state in his early communications on the subject what he expected to take place after the operation: was it to be a new and permanent channel to be made and maintained by the cutting of the cautery, or a liberation of the natural prostatic urethra by certain degree of atrophy following the superficial *mollement* of the gland, or both? Possibly, also, a strong suspicion of the very uncertain action of the incision may have induced us to stand aloof and take an expectant attitude. In the meanwhile, various operations, mutilating, so to speak, have been tried to relieve the sufferers, from the recent division of the spermatic cord to castration and excision of the prostate. So it was not until quite recently when Bottini's instrument had been modified and improved by Dr. Freudenberg of Berlin, and a few successful operations done with it, that the profession in general began to be ready to take a hand and find out whether it can do what is claimed for it by Bottini, who is reported to have performed a number of successful operations with his incisor.

After reading Dr. Willy Meyer's report of his case and demonstration of

the Bottini incisor before this Section, the speaker laid the matter before his patient, H. E., aged ninety-three, who was comparatively hale and hearty in spite of his great age, who had been a prostatic sufferer for five years, and who was showing slowly increasing symptoms of cystitis and beginning pyelitis during the last twelve months, although the muscular force of the bladder remained good. The patient's consent to the operation having been obtained, the speaker obtained the assistance of Dr. F. Torek, who quite recently had obtained one of Bottini's instruments, as modified by Freudenberg. A storage battery supplying a steady current of four volts was sufficiently strong to heat the platinum loop to red heat and to keep it at that as long as required for performing the operation and doing it over again, if required. Having repeatedly examined the patient *by rectum* he knew that the right prostatic lobe was much more hypertrophied than the left, and it was therefore agreed that an upper, a lower, and a right lateral cut only should be made. Everything being ready the patient was anesthetized with a mixture of chloroform and ether, equal parts. No difficulty was met with in introducing the instrument far enough to have its short beak within the neck of the bladder, because there was no middle-lobe projection worth speaking of. The cut was made as soon as he had counted five slowly after turning on the current. Three cuts were made; there was no sizzling noise, nor any odor of burnt flesh; there was, however, considerable oozing of blood from the meatus. They had forgotten to close the circuit in the instrument, and it was only the cold steel that passed along the prostate producing superficial lacerations. Their chagrin was very great, and there was only one thing to do—do the operation over again. After the very first cut there was a strong smell of burned flesh and the subsequent cuts were readily made. The cooling apparatus worked admirably and gave no trouble.

The speaker said that when he first examined the instrument it struck him that the small screw for closing and opening the circuit in the instrument itself was unnecessary, and that it tended to complicate matters in the handling of the tool; he did not think that it was a simple instrument by any means, but requires much attention and study. By the switch of Vetter's storage battery we have the current under complete control, and are able to turn off or on instantly. The operation was performed on Wednesday, January 5th, at 1 P.M.; the patient was again in bed at 2 P.M., when he was fully awake and had as good a pulse as before and during the operation; he had no nausea, nor any unpleasant symptoms. A hypodermic of morphin, $\frac{1}{4}$ gr. was given, although he had no pain. At 4 P.M. he took some food; at 6 P.M. he passed urine and one-half of it was blood; he was compelled to pass his urine every half hour until 6 A.M. of January 6th, when the hemorrhage ceased and did not return. He lost about seven ounces of blood, his pulse remaining good, and his temperature was normal. The speaker said that he passed a very anxious night, knowing as he did that the bleeding was due to an avoidable accident. Ice-bags to the perineum and to the symphysis appeared to do good in controlling the hemorrhage.

January 6th the temperature was 99.5° F. in the mouth; pulse was 86; there was frequent micturition of rather clear urine one to two ounces at a time; his general condition was good, appetite was excellent, and Vichy was given freely.

January 7th, *in statu quo*, temperature, 99° F.; pulse, 84; patient was made more comfortable as regards tenesmus by suppositories containing morphia and extract of belladonna, of $\frac{1}{4}$ grain each; two of these were ordered to be given to him three times in the twenty-four hours.

January 8th, *in statu quo*, temperature and pulse practically normal. A

gentle attempt made to introduce soft Mercier into the bladder was successful.

The bladder has been irrigated twice daily since with a weak solution of boric acid. The patient has continued to do well and without fever to the present hour; while there was between three and four ounces of residual urine before the operation there is but one to one and a half ounces drawn away now before washing the bladder, although micturition is still quite frequent, about every twenty minutes, and since January 9th there has been noticed some fine detritus coming away with the urine, but no shreds of mucus, nor has the microscope shown anything worth noting in the specimens examined.

DR. F. TOREK demonstrated to the section Freudenberg's modification of Bottini's instrument; his description of the instrument differed in no wise from that given to the section at its last meeting by Dr. Willy Meyer. The speaker said that he did not think it was necessary to go abroad to get a good battery—that those made in this country worked well. The fact that the instrument gives a great deal of resistance caused much fault to be found with the batteries. It required about four seconds to heat the cautery-knife, which should be brought to a red heat, and not to a white heat. In Dr. Weber's case, he thought that the knife might have been too hot and so caused bleeding. From the fact that the amount of residual urine had been reduced in the cases referred to, showed that the operation was productive of some good. Statistics show that the mortality from castration is from eighteen to nineteen per cent.; that from resection of the vas deferens is sixteen to seventeen per cent. This shows that these operations are not entirely free from danger; it is also shown that after these operations those who survive have often deranged mental conditions. After the Bottini operation there are no deaths recorded and no bad effects upon the patient's mental condition. While Bottini did the operation under cocaine, he preferred to use general anesthesia in patients whose age was ninety-four.

Dr. Torek then described in detail how the operation should be performed, calling attention to certain points that should be borne in mind: One should not forget to have the bladder emptied; then inject one-per cent. solution of cocaine into the urethra; then test your instrument and introduce it; then make your cuts in the directions intended; after cutting, do not forget to turn the screw, which causes the knife to go back into place, otherwise this might tear off the newly formed blood-clot and so be productive of trouble.

DR. FULLER stated that an operation having been performed only a week previously it was consequently too early to form any opinion as to its result. He was not impressed by the report with the fact that the patient would be in the least benefited. Before the operation there had been four ounces of residual urine and no tenesmus; whereas, there was now constant tenesmus and one and a half ounces of residual urine. Just as soon as that tenesmus disappeared the speaker thought that there would again be four ounces of residual urine. It was a well-known fact that the production of tenesmus in these prostatic cases, whether it be caused by strong intravesical injections, by infections, or by cauterization of the vesical neck, will always serve to decrease for the time being the volume of residual urine, and in some cases such agencies may temporarily cause a complete disappearance of the residuum. Such results, however, do not in the least serve to prove that the patient has been benefited. Bottini's instrument has been before the profession a long time and has been tried by a number of experimentors. Freudenberg's modification has a more powerful caustic device. It may prove to be useful in some selected cases where the obstruc-

tion consists largely of a constriction about the vesical neck, the burning through of which may give relief.

DR. GUITERAS thought that the method was particularly serviceable in prostatic hypertrophies of old men, who were unable to tolerate a very mutilating operation.

The Treatment of Syphilis.—DR. RAMON GUITERAS read a paper with this title.

The Treatment of the First Stage.—The speaker considered first the initial lesion which might occur as such, or infected with a chancroidal virus as a mixed sore. The mixed sore should be washed two or three times a day with warm water, and then covered with a bland antiseptic powder such as iodoform or aristol, and a pledget of cotton. If the ulceration has increased on the second visit it should be cauterized with a nitrate-of-silver stick or a saturated solution of nitrate of silver, after anesthetizing the region with cocain solution. The treatment of the chancre proper, or simple chancre, must be in accordance with the form that it assumes. It may be a dry, scaling papule, a superficial erosion (the most common form of uncomplicated chancre), or an ulcerating initial lesion (the Hunterian chancre). If it is a simple erosion or ulceration the patient is directed to wash it two or three times a day, and to dust on a mild antiseptic powder, consisting of boric acid, bismuth subnitrate, and calomel, equal parts, and afterward put on a thin layer of absorbent cotton. If of the ulcerative form, first cauterize it with a saturated solution of silver nitrate, and then dress with the powder. If it is the dry, scaling papule, he generally treats it with a wet dressing of black wash. This form of chancre is often at the balanopreputial margin in cases where this is somewhat constricted, and here an ointment of ammoniate of mercury, alone or diluted, is more efficacious often than a solution.

The infiltration about preputial lesions often prevents retraction of the foreskin and the accumulation of smegma and secretions tend greatly to irritate the parts; here there is subpreputial discharge with considerable induration. In treating such a condition the object to be attained is to keep the lesion as clean as possible and to make healing applications. We should first try subpreputial astringent or antiseptic injections of weak solution of carbolic acid (1 in 250), or of bichlorid of mercury (1 in 10,000), or black wash. But if this condition seems to grow worse a dorsal incision should be made through the entire thickness of the prepuce, and, after a bichlorid irrigation, the lesion should be cauterized and then treated by the application of the powder above mentioned. Later on, this should be followed by circumcision. Extragenital chancres are treated in the same manner as those on the genitals.

In case of phagenic ulceration occurring in chancres the slough must be first removed by means of a powder of equal parts of charcoal and iodoform, or a charcoal poultice, or by an application of the peroxid of hydrogen, followed by the bland antiseptic powder above referred to. Tonic and supportive treatment is of the utmost importance.

The Treatment of the Second Stage.—In this stage it is well to put the patient in the best possible condition by regulating the diet, improving the digestion, and giving tonics. It is at this time that the physician usually commences his constitutional treatment, although some begin when they have first diagnosed the initial lesion.

Syphilis in this stage is generally treated by mercury. The preparations usually given are the protoiodid, in pills of $\frac{1}{6}$ or $\frac{1}{4}$ of a grain; the tannate, in pills of $\frac{1}{2}$ a grain; blue mass, in pills of $\frac{1}{2}$ a grain; bichlorid, $\frac{1}{30}$ of a grain, or gray powder in 1-grain powders. In using these, the object to be obtained is to ascertain how much the patient can take without

producing the poisonous effects, and then to keep them about a degree lower than the maximum amount until the symptoms of active syphilis have disappeared, when the amount is reduced to about one-half and continued until the case is considered cured. If the symptoms recur, it should be increased again to the original dose. The favorite preparation seems to be the protoiodid given in 1/6-grain pills. He thought the method of increasing the strength, as advocated by Keyes, was a good one.

Before beginning mercurial treatment it is wise to have the teeth put in good order, to brush them after each meal, and frequently to rinse out the mouth with listerine or borine, diluted with four parts of water.

Patients can usually take twelve 1/6-grain protoiodid pills a day, although some can take as many as twenty; many stop at nine. It appeared to him that if the patient could not stand nine it would be better to try some other preparation to see if one could be found that could be better tolerated. It is well to have the patient on the largest dose that can be agreeably borne, as long as the active symptoms of syphilis are present, and then to fall back to three-quarters of this dose, and to continue on this three-quarter allowance until active symptoms reappear, when the patient should again be put upon the full dose and kept upon it during this activity, when the dose can again be dropped to three-quarters.

The speaker said that he was convinced that the tannate was a better preparation of mercury than the protoiodid. They may be given in pills of 1/2 to 1 grain in strength, and at times this may be increased until the patient is taking five grains a day. The salicylate of mercury is popular with a few syphilographers. They begin with 1/5 of a grain three times a day, and increase accordingly.

Inunctions are good for severe cases and where the salts of mercury cannot be well borne when given internally. Patients usually object to them, however, because they are unclean and irritate the skin. From 20 to 60 grains should be used at each treatment. Woolen underclothing should be worn during the course of inunctions. Symptoms of salivation should be watched for, as it is liable to come on suddenly.

Hypodermic injections of the bichlorid have many advocates. They maintain that gastro-intestinal irritation and dermatitis are avoided by this method. Eichler's method is:

R	Hydrarg. bichloridi	.	.	.	.	.	.	.	.	gr. i
	Glycerin	} aa	.	.	.	.	.	.	.	3 i.
	Water		.	.	.	.	.	.	.

M. Sig. Inject ten drops daily. Each ten drops contain 1/12 of a grain. Calomel is often given hypodermically with glycerin and water.

Fumigations are rarely used to-day, although they are very efficacious if we wish to produce a rapid effect. Here calomel is used at each sitting in from 20 to 60 grains.

The Treatment of Some of the Special Manifestations of the Secondary Period.—Local applications during this period are frequently made, as in the following instances: Occasionally, on the forehead, there appear a number of lenticular papular lesions forming the corona veneris. Here it is well to apply the ammoniate-of-mercury ointment on a piece of sheet lint on retiring, and to allow it to remain on over night. Ecthymatous, impetiginous, and pustulocrustaceous syphilides are also benefited by the same application. Palmar syphilides are of the squamous variety and may be treated by the same ointment, alone or mixed with equal parts of zinc oxid or boric-acid ointment. In onychia and paronychia the ammoniate of mercury should be applied locally and a glove-finger worn. Moist papules

about the genitals are best treated by the powder of bismuth, boric acid, and calomel already alluded to.

In case of mucous patches in a man's mouth his tobacco should be cut off, and he should use a wash of 1-to-2000 bichlorid solution in peppermint-water four or five times a day, in addition to which the patches should be touched every three or four days with a one-in-eight solution of nitrate of silver or a four-per-cent. chromic-acid solution. In syphilitic alopecia the head should be washed night and morning with a 1-to-1000 solution of bichlorid; or an ointment of white precipitate and boric acid may be applied.

In iritis a 4 grain-to-the-ounce solution of atropin, if instilled four times a day, is usually sufficient to keep the pupil dilated. If adhesions are forming the strength of the solution should be increased. The eye is washed with a mild solution of boric acid, and, in severe cases, hot applications are kept on the lids. If permanent adhesions form between the iris and the lens iridectomy may be performed. The angina accompanying the acute stage may be treated by a gargle of 1-to-2000 solution of bichlorid in peppermint-water, or by a solution of 15 grains of zinc chlorid in 1 ounce of listerine and 3 ounces of water.

In regard to the duration of the treatment, it was the speaker's custom to keep the patient on mercury for one year and then to change to the mixed treatment, which would be continued for another year. After this two years of treatment he frequently recommends his patients to take mixed treatment for a period of six weeks every spring and fall.

In the secondary stage of syphilis he never gives the iodid of potash except in certain precocious cases in cachectic individuals where dangerous symptoms have set in. In such cases he used inunctions or mixed treatment in connection with increasing doses of iodid of potassium, together with tonic and supportive treatment. For the toxic effects of the mercury, stomatitis or gingivitis, a saturated solution of potassium chlorate alternating with one of boric acid, will do good as a mouth-wash.

Treatment of Tertiary Syphilis.—The commonest manifestations are tubercular lesions of the skin, periostitis, osteitis, osteomyelitis, dactylitis, rhinitis, pharyngitis, laryngitis, orchitis and epididymitis, neuritis, or gumma of the brain or cord, and sclerosis. These forms are best treated by iodid of potassium internally and some preparations of mercury locally.

It appeared to the speaker from observation in these tertiary troubles that better results are obtained from large doses of iodid when taken in connection with mixed treatment. The conditions which indicate the use of iodids are an excess of cell-growth and an accumulation, either from renewed activity in the residua of the antecedent disease, or from a crippling or obliteration of the lymphatics, due to the long-continued hyperplasia and irritation of the secondary stage (White).

As we have the toxic manifestations of mercury in the secondary stage, so we have the toxic effect of iodid of potassium, known as iodism in the third stage. Thin says: "The rational of iodid eruptions seems to be that there are conditions in which iodine, when present in the blood, attacks and disorganizes the blood-vessels at certain localized points, and as a result of this injury to the wall of the vessel there is an escape of blood into the surrounding tissues."

Hereditary Syphilis.—This shows itself in infants, usually appearing before the end of the second month. As soon as any symptoms of syphilis occur the patient should be placed at once on mercury. It is surprising how much mercury an infant can stand without producing salivation. The preparations used are blue mass, well diluted with vaselin, for inunctions; calomel in 1/10-grain doses, with sugar of milk, four times a day, or gray

powder, 1 grain four times a day. For the snuffles, nasal irrigation of boric-acid solution, 20 grains to the ounce, are of value. For other lesions, an ointment of boric acid, ammoniate of mercury, and zinc oxid, or of powder of calomel, bismuth, and boric acid should be used locally.

Discussion.—DR. F. R. STURGIS opened the discussion on the general treatment of syphilis. He said that he would confine himself to the initial lesion and the general after-treatment. In regard to the initial lesion, experience has taught that non-interference is conducive to speedy recovery. He thought that we should dispense with the cautery as well as the nitrate of silver; all applications of this kind irritate. The two main points in the treatment of the simple variety of the lesion were cleanliness and dryness. The speaker thought that the internal treatment had better be abandoned until the disease frankly shows itself. He said that he must confess that he was much astonished at the facility with which some patients took large doses of the protoiodid, even up to two or three grains. In regard to the question of the advisability of inunctions, while admitting their efficacy, he thought they were very dirty. If necessary to use this method, he should advise that it be applied to the soles of the feet in doses of ten to fifteen grains, or even more; in this way every movement that the patient makes tends to rub in the remedy. Socks should be worn at night, and woolen ones he considered the best. The hypodermic method did not present to him any superiority over other methods, except as to speedy action. In private practice it was difficult to get the patients to consent to this procedure, but in a hospital it was different. The salicylate of mercury was a good preparation to use in this way. Tonics are of great value. The speaker cautioned against the depressing effects of mercury; this drug first acts as a tonic and then as a depressant. The diet should be the best that the patient could afford. In his own experience alcohol and syphilis do not agree even in small amounts, and he did not think that the slightest advantage was to be derived from the use of alcohol. In regard to the duration of the treatment, it varied very much. Some cases get well without any treatment except tonics. The speaker had seen cases that got well without any treatment whatever, but, of course, this was the exception. He thought that the iodids should be regarded more as an adjuvant in the treatment of this disease than as the mainstay. It was of great advantage in stopping the growth of gummata or the extension of ulcerations. His own plan was to use the interrupted treatment. He attempted to get the physiological and not the toxic effects of the drug. The average duration of the disease was about eighteen to twenty-four months. After the disease is apparently cured it is well to keep the patient under observation for many months.

DR. J. A. FORDYCE said it was rather strange that there should be so many unsettled questions regarding the general treatment of syphilis, as it was one of the few diseases for which we have specific remedies. It is, however, pretty generally accepted by surgeons who treat such cases that mercury alone should be employed during the first year or two of the disease, excepting in certain cases where pustular and ulcerative lesions appear early in the course of the affection. In these cases better results are at times obtained by combining iodid of potassium in small doses with the mercurial. In treating the uncomplicated initial sore he seldom used any other application than calomel or calomel combined with some indifferent powder. The dry, scaling, papule or chancres on extragenital parts may be healed by ointments of ammoniated mercury or calomel. Chancres situated beneath a tight foreskin should be treated by subpreputial injections of lotio nigra or weak solutions of corrosive sublimate. Flat condylomata about the genital or anal regions, or in other localities, are readily cured, as a rule, by the free use of calomel as a dusting-powder. In treat-

ing obstinate recurring mucous patches he obtained better results from the use of solutions of chromic acid in the strength of 20 to 30 grains to the ounce of water than from the employment of the usual application of nitrate of silver. In ulcerations of the gums resulting from pyalism the chromic-acid solution acts in a prompt and satisfactory manner. Care should, however, be taken after its use to have the mouth thoroughly rinsed with water. In all cases, before a mercurial course is begun, the teeth should be put in order by a good dentist, all cavities being filled and the tartar removed. By this means salivation could, in a great measure, be prevented or limited. He believed that inunction of blue ointment was, when practicable, the best manner of beginning the general treatment of the disease. When it could not be effectively carried out it was his custom to employ the blue pill internally in doses of from 1 to 3 grains three times a day. If diarrhea was produced he saw no objection to the use of small doses of opium for a few days until the tendency ceased, as it usually did after a short time. In certain cases better results were obtained by using mercury with chalk or the protiodid. He was disposed to favor the general opinion of the speakers that it was best to wait until secondary symptoms were present before resorting to general treatment. He had lately observed two patients with pretty typical initial lesions, for periods of ten to twelve weeks, in whom no nodular enlargements or secondary symptoms appeared. Such cases may later show some signs of general infection or possibly be abortive types of the disease where the virus exerts only a local effect. He believed that the fairly continuous use of mercury for a year, to a year and a half, with one or more intermissions, would cure the great majority of our cases. We have, unfortunately, no method of determining when a syphilitic patient is cured, and the only relative safeguard against future accidents is a prolonged and properly directed mercurial course. Although it was generally taught that the iodids were not directly curative in late syphilis in his opinion their action was as much a specific one as that of the mercurial in early syphilis.

DR. C. A. RANSOM discussed the hydrotherapy. He said that in the treatment of syphilis by baths and the desirability of sending patients to the springs for the treatment of this affection a greater diversity of opinion probably exists among prominent syphilographers than upon any other point in the therapy of the disease. There are two classes of mineral waters of particular note as possessing virtue in the treatment of this affection. They are sulphur and salt water. As representative of the former class are the waters of Aix la Chapelle, Aix les Bains, Bariges, Burtschaid, La Presto, Schinznach, Eaux Chauds, Luchon, Wulbach, Cambo, and Harrowgate in Europe, and those of the Hot Springs of Arkansas, Warm Springs of Virginia, Richfield Springs, Sharon Springs, White Sulphur Springs of Virginia, Glenwood Springs of Colorado, Las Vegas Springs of New Mexico, and others of this country. The most prominent springs of the second class are: Kissingen, Homburg, Krinznach, Pyrmont, Baden Baden, Weisbaden, Balarus, Bourbourne, and Les Bains, in Europe, and in this country, St. Catherine, Lansing, Caledonia, and Mt. Clemmons. By some the sulphur waters are considered as in themselves curative of the disease, the mineral ingredients having the same effect upon the materies morbi of the affection as has mercury and iodine. Unprejudiced observers, however, attribute their beneficial action not to any specific effect upon the disease itself, but to the stimulating effect upon the organism, increasing the activity of the glandular system, stimulating the eliminative action of the skin and kidneys, furthering tissue metamorphosis, and thus putting the tissue in a more receptive condition for the action of mercury and the iodids, and after their injection carrying them off and preventing the deleterious effects which their

accumulation in the system frequently produces. It is a fact well-known by those who have had the opportunity of treating patients at the springs that it frequently happens that an old syphilitic who has resisted a most thorough course of mercury and iodids at home, will improve at once under the same treatment when combined with the use of the baths and water. It is equally well-known that without the use of mercury the baths will do but little if any good so far as the syphilis is concerned. Dr. S. Minton of Berlin claims that in certain individuals who have taken mercury over a protracted period lesions will appear upon the skin and mucous membranes which are identical in appearance with late syphilitic lesions, though these lesions disappear under the influence of the baths without other medication, as they are in fact produced by the mercury rather than the disease, and it is upon these cases that many observers have erroneously based their opinion that the waters were capable of curing syphilis. The speaker had never had cases of this kind or of latent syphilis in which he could attribute an outbreak of the disease to the use of the water. His method of administering mercury at the baths is generally by inunction, and he is convinced from his observation that even in the early stages of the disease the effect of the drug is augmented by the use of the bath, that the early eruptions disappear more rapidly, and that there is less liability to pytalism than when the drug is administered alone; it is, however, in late syphilis that the beneficial effects of the bath as an adjuvant is best seen. In these cases not only is their tolerance to mercury and iodids greatly increased, but the system is undoubtedly put in a more favorable condition for the action of these drugs, for many cases show a decided amelioration of symptoms upon the same doses of the drugs which previous to the use of the baths had no effect whatever. Some have claimed, foremost among whom is Musser, that with inunction of mercury the sulphur water should never be used, as the mineral ingredients of the water would form with this mercury an insoluble sulphid, and thus retard rather than augment the effect of the drug. Grabowski conducted a series of experiments with the view of determining the truth of these claims, and proved by them conclusively that they were entirely erroneous. In considering the efficacy of the various mineral waters in the treatment of this affection, and in advising our patients as to the selection of a suitable place, we must not lose sight of the fact that hydrotherapy alone, that is, with its use of a purely indifferent water, has in itself a marked effect upon the system. The use of douches, sprays, showers, packs, etc., are of the greatest value in invigorating and increasing the resisting power of the tissues, and much of the beneficial effect derived from the use of sulphur or saline waters is undoubtedly due to this factor. Then, too, the change of scene and environment, the more hygienic *régime* at the springs with the out-of-door life that is made a feature at these places, are all conducive to good results. To summarize: (1) Mineral waters in themselves have no curative effect on syphilis. (2) The value of mineral waters in the treatment of syphilis is as an adjunct, not as an active agent. (3) That the use of mineral waters at the springs as an adjunct to mercury and the iodids is of undoubted value in both the early and late manifestations of the disease. (4) That their value is due not alone to the chemical constituents but also to the method of their application. (5) That their efficacy lies in their power to tone up the nervous system and increase the resisting power of the tissue, and to produce a higher degree of oxidation of the toxins and the waste products of the syphilitic infection, and a more active elimination of the same, as well as of ingested drugs.

DR. J. H. FRUITNIGHT took up the special discussion of infantile syphilis. He said that it was best to begin the treatment before the patient was born; that is, if we are positive that the father or the mother, or both, have had

syphilis. In regard to infantile syphilis, some cases occur within the first few days after birth and these cases are almost invariably fatal. So soon as infantile syphilis is discovered, active treatment should be begun, and mercury is the remedy. The best method of administering the drug is by inunctions of the blue ointment with vaseline, in the strength of twenty per cent. applied daily to different parts of the body. A good plan is to place a lump of this preparation upon the belly-band and so the movements of the child assist in the work. The treatment should be kept up at least one year. If, for any reasons, the inunctions are objectionable, the gray powder, one grain, four times a day; or else, the bichlorid of mercury should be given, in doses of one-sixtieth. Carry this treatment for a period of one year and then reduce the dose one-half and continue longer if deemed necessary. If a rapid effect is required, then calomel, one-twentieth of a grain four times a day, is good. The constitutional treatment affects children same as it does adults, although the speaker had never seen a case of salivation occurring in children from this cause. The symptom which is indicative of mercurial poisoning is profound anemia; when this occurs the amount of the drug should be reduced. The tertiary symptoms occurring in children should be treated, as in the adult, by iodid of potassium. In regard to the local measures, the same general treatment should be given to them as in adults, but one should be guided by the vulnerability of the tissues. In growing children one should give them as good a constitution as is possible; this is very important. Therefore, such remedies as cod-liver oil, iron, syrup of the iodid of iron, tincture of nux vomica are all good remedies to administer to these children. In former times it was the custom to give treatment by the indirect method, that is, drugs to the mother, but this has fallen into disrepute.

DR. C. H. KNIGHT discussed the treatment of syphilis of the upper air-passages. He said that he would restrict his remarks to a single phase of syphilis of the upper air-tracts, that developed when the disease attacks the nasal septum. The discomfort entailed, disfiguring results almost sure to follow, if neglected, and its amenability to treatment, gives this phenomenon special interest. Strange to say, its true character escapes detection oftener than that of almost any other specific lesion, until too late to prevent deformity. In its early stage it presents itself in the form of a smooth, symmetrical swelling of the cartilaginous septum, both nostrils being more or less occluded. The mucous membrane is perhaps slightly hyperemic, is not apt to be very sensitive, and gives to the finger or probe a distinctly boggy sensation. In the majority of cases the condition is looked upon merely as an aggravation of a preexisting nasal catarrh, and most patients give a history of an old injury to the nose, which has induced a deviation or thickening of the septum, favoring the development of the specific lesion. This state of things may exist, without much change, for weeks, when erosion of the mucous membrane takes place, ulceration begins, and instead of a smooth surface we have a rough, irregular, fungoid ulcer of a greater or less extent. If allowed to pursue its course the inevitable result is perforation of the cartilage, progressive destructive ulceration, perhaps involving the columna and the ala nasi, and eventually interfering with the nutrition of the vomer itself, with consequent necrosis of part of the bony framework of the nose. The resulting characteristic "saddle-back" deformity of the external nose is familiar. It may result from cicatricial contraction, but is more apt to ensue in case of affections of the nasal bones themselves. Dr. Knight had seen several cases of loss of almost the whole of the nasal septum without facial disfigurement. The point that concerns us at present is the treatment of the antecedent stage, before the vitality of the cartilage or bone has become so impaired that caries or necrosis is no

longer avoidable. Nothing in the range of therapeutics is more satisfactory than the treatment of this condition at its inception, and even after ulceration has begun the energetic use of proper remedies will generally give decided results. The usual constitutional treatment is indicated—iodid of potash, in rapidly increasing doses, usually in conjunction with a mercurial, is almost invariably effective. The routine method of giving the iodid is to prescribe 10 drops of a saturated solution immediately before or an hour after each meal, a drop being added to each dose until the physiological effect is obtained, or a local impression is observed. It is best borne well diluted in milk or Vichy. Mercurials are thought to be most effective in cases of comparatively short duration and in those in which a mercurial course has not been hitherto thoroughly pursued. One of the best modes of giving mercury in syphilis of the air-passages is by inunction, provided the patient does not object on the ground that it may expose the nature of his complaint, or on account of its uncleanliness. Special precaution must be observed to prevent stomatitis. Subcutaneous injection and fumigation seem less desirable. Internally, the protoiodid and biniodid are preferable to other salts. The local treatment before the stage of ulceration is very simple, consisting of detergent and sedative douches or sprays. A spray of Dobell's solution, or boracic acid, followed by one of menthol, 5 grains to 1 ounce of fluid abalone, is sufficient. All strong and irritating applications should be avoided. When the tissues have broken down and sluggish exuberant granulations appear it may be necessary carefully to touch the margins of the ulcer with nitrate of silver fused on a probe, and the formation of hard, irritating crusts may be prevented by daily application of an ointment composed of one part of white precipitate ointment and three parts of oxid-of-zinc ointment. The use of stronger caustics, such as the acid nitrate of mercury, one part to eight, is seldom necessary and should be employed with the strictest caution. It is the fashion to extol certain modern additions to our list of local applications contributed by the industrious pharmacist. Some cases of sluggish ulceration in which there is not much secretion seem to repair more quickly under the use of powders. Aristol, euophen, nosophen, and others have been tried with good results. In the majority of cases the old-fashioned mode of treatment, first outlined, is equally prompt and decided. As a matter of fact, local treatment is wholly secondary to internal medication. Most cases get well if the latter be vigorously pushed. What has been said about general and local medication applies equally to all specific lesions of the upper air-tract. The speaker had chosen this insidious and dangerous process involving the septum because of its frequency and importance, which do not always seem to be appreciated.

DR. J. E. WEEKS discussed syphilis of the eye. He said we had two forms of syphilis to consider, congenital and acquired. The most common disease of the eye, due to inherited syphilis, was parenchymatous keratitis. This showed itself in childhood not usually before the age of four years, but it might show itself as late as the forty-fifth year. The treatment was local and constitutional, or systemic. The systemic treatment in children, with mercury, as Dr. Fruitnight had mentioned, was of the greatest importance. Iodid of potassium was of little value. The mercury should be given by inunctions, or by repeated and small doses of calomel; this gives excellent results. The general condition of the patient should be considered and suitable foods, tonics, etc., administered. Local treatment was given for the purpose of preventing adhesions forming between the iris and the lens capsule and to hasten the clearing up of the cornea; the first could be accomplished by the use of atropin, the second by means of baths of hot, mild solutions of boric acid or the bichlorid of mercury. Calomel or the

yellow-oxid-of-mercury ointment, applied to the cornea once or twice a day, was very effective. The duration of the treatment varied from six weeks to six months. In acquired syphilis, the primary sore may affect the lid or the conjunctiva. The treatment of the primary sore here differs from that of other parts of the body. We should be careful not to use anything which would endanger the transparency of the cornea. Solutions of the bichlorid of mercury, 1 to 8000, gives excellent results. Calomel may be dusted on the primary sore and some mild antiseptic wash used. The speaker said that calomel irritated the conjunctiva when used in cases where iodid of potassium was given internally. He thought that this was the reason why calomel, in certain cases, irritates when applied to other parts of the body. Mucous patches and macular syphilides also occur on the conjunctiva. Iritis is frequently met with in this disease. Coming on in the second stage and in the early tertiary period, medication should be somewhat governed by the stage in which we meet with the iritis. Iodids should be used, especially when there is much plastic exudation. When syphilitic iritis occurs, get the system under the influence of mercury as quickly as possible, and, for this purpose, the speaker thought that inunctions were more rapid than any other method of administration. The local treatment of iritis consisted in the use of atropin to prevent adhesions of the iris to the lens capsule, and frequent bathing with hot, mild solutions of boric acid or the bichlorid of mercury, doing it for one-half an hour at a time, and repeating the baths every two or three hours. Patients with this trouble can do nothing else, consequently this treatment does not seriously inconvenience them. Applications of blue ointment to the brows two or three times a day is also of service. The affections that give us much concern are diseases of the choroid and ciliary body. Choroiditis due to syphilis occurs in the later stages of the disease. Here one should push the iodids to the utmost. In those conditions where the exudation is profuse the vitreous remains hazy for months, and even years, and it is only by the most persistent and long-continued treatment that we can bring about a clearing up of the vitreous. Optic neuritis and retinitis due to syphilis are met with from time to time. They may be very persistent. These affections call for vigorous treatment with mercury and the iodids, introducing the mercury into the system by inunctions or by the stomach. His experience had been that syphilis does not always subside in from one to three years; at the present time he stated he had a case under treatment which had been taking antisiphilitic treatment for four years and a half; at intervals of two or three months he subjected the patient to thorough treatment. In regard to treatment of affections of the lids, gummatous nodules, periostitis, caries of the bones of the orbit, etc. It was the same as that directed to the same conditions affecting other parts of the body.

DR. J. A. BOOTH discussed the treatment of nervous syphilis. In the treatment of the many involvements of the nervous system in this disease, endarteritis, meningitis, neuritis, palsies, gummatous focal lesions, our chief reliance should be in the administration of the iodids of potassium, which should be given freely. It was surprising how well patients of all ages bear doses of from 50 to 150 drops of the saturated solution without iodism or gastric catarrh. Experience has taught us that it should be given largely diluted in an alkaline water and when the stomach is empty; given this way it is not uncommon for patients to bear well 200 grains thrice daily without harm. However, it is rather unusual for such large doses to be demanded. It should be borne in mind that patients bear large doses of the iodid quite as well as the smaller ones, and that sometimes the iodism produced by small doses disappear when large doses are given. When the speaker met with any difficulty in the administration of the drug it was his

custom to dilute with milk. In regard to the use of mercury, his own experience had taught him that its most important place was in the earlier stages, the stages of primary and secondary. If, however, the symptoms indicated the involvement of the nervous system within three to five years after infection then the drug should also be used, preferably by inunction. As examples of syphilitic lesions of the brain he related the histories of two cases which illustrate the subject fairly well, and which showed what might be accomplished by treatment. In regard to Dr. Weeks' case of atrophy of the optic nerve he also had had cases which were very marked ones—patients totally blind; they recovered their sight under iodid of potassium.

DR. GUITERAS closed, said that there were certain points that were very interesting to him; that point of Dr. Sturgis, of putting the mercury in the socks; that point of Dr. Fruitnight, of putting the mercury on the belly-band of the child, etc. In this way the mercury would be used as an ointment while one was carrying on the various pursuits of life, and without any apparent discomfort to the patient.

DR. STURGIS asked the Section in regard to the use of methylene-blue in the treatment of syphilitic lesions of the tongue. He had used it lately with good effect in twenty-per-cent. strength.

DR. LAPOWSKI said he has a patient with leucoplakia of twenty-years' duration; that he treated the patient with a ten-per-cent. solution of chromic acid and immediate application of nitrate of silver in substantia without any effects. Then he used a twenty-per cent. methyl-blue solution, but without effect. The patient received three injections of calomel, and the white patches are improving.

Selections.

SYPHILIS AND CUTANEOUS DISEASES.

In Charge of Dr. Boleslaw Lapowski.

1. The Staining of Micro-organisms in Syphilitic Tissues and the Inoculation of Guinea-pigs with Syphilis. PROFESSOR DOHLE (*Münch. med. Wochschr.*, p. 1131, 1897).
2. The presence of Fungi in Syphilis, Carcinoma, and Sarcoma. JOS. KREMER (*Centrbl. f. Bacter.*, vol. xx, p. 60, 1896).
3. The Appearance and Location of the Syphilitic Contagium in the Tissues. DR. VAN NIESSEN (*Virchow's Arch.*, vol. 149, p. 1).
4. The Lower Organisms, as Factors in Producing Tumor-like New Growths in Plants. A Critical Review. PROFESSOR S. G. NAVASHIN, Kiev (*Russian Arch. of Pathol., Clin. Med., and Bact.*, vol. iv, p. 2).

In 1892, Döhle described some protoplasmic forms of various dimensions, endowed with motion by means of rod-like prolongations, and found in syphilitic sores. In order to prove that these protoplasmic forms are the main factors in producing syphilis, it was desirable to show the presence of the forms in syphilitic tissue. Staining ulcera dura or gummata with a mixture of hematoxylin and carbol-fuchsin, and differentiating by iodine or chrome preparations and alcohol, the author noticed intensely red-colored bodies of different size, with prolongations, attached here and there. The very small bodies are round, the larger round or pointed. He looks upon

the bodies, found in the tissues, as identical with the protoplasmic forms found by him in the secretions of syphilitic ulcers. In order to inoculate syphilis into animals; he put a piece one-half centimeter in size of a lung-gumma of a still-born syphilitic child under the skin of the abdomen of a guinea-pig. The skin was sutured and covered with collodum. The implanted piece was movable at the beginning; later on painful infiltration was formed around it. After four weeks the infiltration was gone, but the implanted piece was felt for four months yet. Gradually the animal grew weak, did not move, and perished from emaciation. (It is not necessary that a chancre or other important changes take place in the inoculated animal, as in human beings syphilis sometimes runs a very mild course.) In the blood of the dead animal movable corpuscles of round or oval form can be seen; sometimes the corpuscles are paired, and often prolongations are visible. The movable corpuscles correspond entirely with the small-sized bodies seen by the author in syphilitic secretions, and in the blood during roseola syphilitica. The red blood-corpuscles of the inoculated animal underwent the same change as human blood during an attack of syphilis.

At the meeting of the German Naturalists and Physicians in 1894, Kremer described some fungi, which he discovered in syphilis, carcinoma, and sarcoma; in this article he gives a more detailed account of his researches. He describes the modifications and polymorphism of the fungus and his attempts to cultivate it, which show that the different forms of the vegetable parasites found in syphilis belong to the class of *aspergillus*. In cultivating the fungus he differentiated one form of it. He found this fungus constantly in cases of syphilis, and was able to cultivate it upon different media. He calls this form of fungus syphilis *aspergillus*. He found also a fungus having features similar to the syphilis *aspergillus* in carcinoma and sarcoma. As long as we are not able to differentiate the fungus by a special method of staining from other formations, as tissue-cells, cell-nuclei, blood-corpuscles, and even fat-corpuscles, to which the fungus is very similar, we will not be in position to show its constant presence in the foregoing diseases, as its slight morphological differences cannot be relied upon with certainty.

The author expresses himself very cautiously regarding the possible etiological importance of the fungi in producing syphilis, on account of the lack of experimental inoculation. Not so guarded is (3) Van Niessen; he is not only convinced of the etiological importance in syphilis of his contagium, but believes to have it proved by his inoculations and demonstrations of the contagium in the syphilitic tissues. As his pamphlet and articles did not attract the due attention of the medical profession, he regrets the absence of interest in such an important question on the part of physicians. Especially does he upbraid dermatologists and syphilographers, who, "having appropriated" the syphilitic patient, do not show the fervent zeal either to inquire thoroughly into the clinical symptoms of the patient suffering with syphilis or to examine pathologically the syphilitic products, thus missing the opportunity "to confirm his discovery." In case they should not feel disposed to use for pathological researches the large material at their disposal, he not only is ready to take the work upon himself, but magnanimously offers "to pay postage" for every ulcer durum, papule, or gumma sent to him by mail. Examining pathologically the scant material at his disposition, the author, nevertheless, was able to see—and the accompanying drawings seem to prove it—a great many new and startling things which other observers "failed to see." But in describing the pathological pictures seen by him, the author never finishes the description, always interrupting the most interesting point by a promise to give a full description "in the second edition of his pamphlet," or in an ar-

ticle about to be published. In the mean time he claims to have found in the syphilitic products "outside of the harmless varieties of vegetable micro-organisms, pus-producing microbes, and other pathogenic spores, a sort of protophyte species, the cancer-producing germs, and trychophyton in the largest meaning of the word," not mentioning his syphilococcus and staphylococcus aureus and cereus. He substantiates his claim merely by reporting that he did see in and cultivated from the blood of patients with late syphilis, chancre and syphilitic paralysis due to involvement of the cortex chiefly, beside his syphilococcus, the staphylococcus aureus. In the adventitia and sometimes in the lumen of syphilitic vessels he saw groups of cocci morphologically akin to the coccus, found by him in *ulcus durum*. He urges earnestly examination of the blood before or during the outbreak of the roseola, and he assumes that the work will be crowned not only with a successful discovery of microbes by means of the microscope but also with positive cultures; as, to find in the blood during the outbreak of the eruption the factors (Erreger) of the exanthema, is more a matter of patience than of ability (Künst). He found not only in the blood of patients, suffering from any form of syphilis, elements belonging to the genus of *Mucorini*, spores and small, peculiar looking plasmatic spore-derivatives, but also in the intracellular tissue of a syphilitic induration. What is more, in a case of developed cerebral gummatous meningitis he was able with "absolute surety" to see trichophytic elements in nearly all stages of development in the affected tissue of the meninges. He claims three varieties of syphilis, namely, due to a coccus, bacillus, and fungus and ascribes the different clinical aspects and various courses of syphilis to the different combinations of the true parasites. While the etiological importance of fungi in malignant diseases of the animal kingdom may be questionable as yet, their important and recognized rôle in the vegetable kingdom is shown by (4) Navashin, who calls the attention of the medical profession to one branch of botany, namely, to the vegetable pathology, which is unknown to most of the medical profession and entirely neglected in the university education of the future medical practitioner, or even of the anatomopathologist, while this branch of botany may throw a new light in the darkest corner of medical research, namely, in the causation of malignant tumors. There is a great similarity between a vegetable new growth and an animal tumor, and the causation and pathology of the vegetable new growth is known in all its details, from the beginning of its growth up to its destruction.

The important rôle of parasites in producing certain characteristic diseases in plants was known to the botanist from the time of the eminent German botanist De Bary, long before parasitism was thought of as a cause in medicine. The botanist, aiming more to prevent disease than to cure the plant, naturally paid more attention to the etiology than to the treatment of a vegetable disease, and consequently the etiology of some parasitic diseases of the plants is greatly more advanced (we may say, is known in all its details) than in similar parasitic diseases in the animal kingdom, especially the cause of the vegetable diseases due to parasites. Here the botanist can follow the development of the parasite and of the changes produced by it from the moment of its entrance into the plant up to the time of formation of new spores. According to their action upon the tissues of the host the parasitic fungi can be divided into two classes: one, which cannot live in the products of the natural cell of the plant, but finds the pabulum for its existence in the destroyed cell; another class, which does not cause the destruction of the cell, but induces the cell to enlarge and proliferate, producing in the end a new formation of tissue not typical for the affected organ — a phenomenon which is not appropriate for the defense of the af-

fecting plant against the invading fungus, but rather favorable to the multiplication and growth of the parasite. Not only are the action of the parasite upon the plant and reaction of the plant-tissues upon the parasite analogous to the action of the parasite upon an animal and reaction of the animal-tissue upon the parasite, but the external appearance of the affected portion of the plant corresponds with the external symptoms of a new growth; in both, sooner or later a destructive process upon the surface takes place, and a demarcation line is formed upon the same histological principles. The fungi which produce the malignant disease have their characteristic features; they only develop in tissues of special plants belonging to one special class. Thus, here, as in animal pathology, we have pathogenic specific factors called by De Bary "obligatory" parasites. Of special interest is the parasitic fungus which produces in plants a disease called "cancer," which has a great many analogous points with the disease called cancer in animals. This parasite fungus was first discovered in 1877 by Voronin, and called by him *Plasmodiophora Brassicæ*. The cells of the portion affected with the disease are occupied with round incapsulated bodies. When the cell undergoes destruction the bodies are set free in the soil. These bodies proved to be spores, which, being put in water, emit through the cracked capsule ameboid formations, with a cilium, and a pulsating vacuole, containing some small grains. Owing to their cilia these spores are motile. Voronin was able to reproduce the disease in cabbage, by inoculating the sterilized earth, in which the cabbage was growing, with the spores. Voronin, twenty years ago, concluding his work upon *Plasmodiophora Brassicæ*, says: "The appearance and development if not of all, at least of some pathological new growths in the animal organism can be explained as follows: the small ameba enters into a living organism, develops there in a plasmodium, and irritating the tissue of the organ, reproduces a pathological change of the tissue; to which is due the form and the size of the new growth." Navashin is personally convinced that this opinion is gaining more ground at present, owing to the researches of the compatriots of Voronin. In his work Voronin mentions a curious remark made by one of the ancient syphilographers—the Spaniard, Ruiz Diaz de Isla. His remark is so striking and bears so much with the subject reviewed, that we venture to produce it here. Ruiz Diaz de Isla says: "In my native land I saw cabbage affected with syphilis. This disease is transmitted to the cabbage through stagnant water, in which the linen of venereal subjects are washed, and which (water) is used to irrigate the plant. The excrescences in the plant are so much similar to the pustules of the French disease that boys cut them off with scissors and paste them upon the face in order to simulate the disease."

Malignant Papillary Dermatitis. F. H. WIGGIN and J. A. FORDYCE
(*New York Med. Journ.*, October 2, 1897).

The authors report a typical case occurring on the breast of a woman of fifty-five. In its early stages the sore was small and presented the usual eczematous symptoms, discharging a clear fluid. At the end of five years the inflamed area was 3 x 2 inches in extent. The nipple was retracted and the skin lesion showed a sharply defined border with a red, granular surface. No tumor could be felt, but the underlying tissues were indurated. Amputation was done and the microscopical examination was made by Fordyce. Tersely put, the morbid changes are inflammation of the papillary layer with edema and vacuolation of the epidermic cells, the latter being followed by complete destruction or by abnormal proliferation in different situations. Secondary to these changes there is proliferation of the

lining of the galactiferous ducts and glands. The proliferated cells finally break through the basement membrane into the surrounding tissue, at which point malignant infection begins. The article is accompanied by a colored plate and admirable microphotographs.

A Curious Case of Parasitism in Man: Distoma Subcutaneum.
HENRI MALHERBE (Nantes). (*Le Progrès Médic.*, No. 4, 1898.)

The author's case is the fifth case known in literature. It happened in a girl of twenty-three who came to consult Dr. Gaibert for a tumor on the middle region of the left scapula. The tumor was of a red color, resistant, not removable by pressure. She stated that several months ago she had an analogous tumor on the right side which disappeared of itself. Fever and general malaise accompanied the tumor. The physician was inclined to regard the tumor as a tubercular affection, but when fifteen days later he saw the tumor changed its place, appearing fifteen centimeters lower than at the first time, he opened it, and a serous fluid tainted with blood was discharged. A small animal measuring four to five millimeters, of yellowish color, could be seen on the blade of the knife. The animal proved to be a distoma hepaticum.

The mode of penetration is as yet not established. Some say the distoma may invade the skin during a bath; others claim that it enters the system by the general circulation.

The prognosis is favorable. The localization was in the subcutaneous cellular tissue.

GENITO-URINARY DISEASES.

A Preliminary Report upon the Examination of the Bladder and Catheterization of the Ureters in Men. H. A. KELLY, M.D. (*Annals of Surgery*, p. 71, 1898).

Believing that examination and catheterization of the male ureters could be performed with the same simple form of instrument as in the female, the author had an instrument constructed for that purpose in 1893. It was not, however, until November, 1897, that he found time to experiment with the instrument. The instrument is a simple straight tube, longer than in the female, caliber 24 to 28 F., furnished with a handle, the length of tube being about 18 centimeters.

The patient examined had had persistent hematuria, was first examined with a Caspar cystoscope; the bladder-wall appeared normal, but at the base was seen a dark tufted villous area from which blood seemed to rise up. This was taken for a papilloma. The bladder was then emptied and the Caspar instrument replaced by the Kelly instrument. This was passed while the patient was on his back. He was then made to assume the knee-chest position and the instrument brought back between the thighs. A head-mirror was used and light reflected from an electric light held near the sacrum. Air was drawn into the bladder; the posterior wall readily seen, it was then noted that what had been taken for a villous growth was a blood-clot that had accumulated at the base while the patient was lying on his back. He was able to locate the left ureter and introduce a metal catheter into its orifice. The urine which flowed out contained blood, and demonstrated the renal origin of the hemorrhage. He was unable at that time to introduce a flexible catheter.

The author believes that this method of examination is capable of development, and that it will afford a method also for direct inspection and treatment of the bladder-wall.

Extraperitoneal Rupture of Bladder with Fracture of the Pelvis.

J. F. MITCHELL, M.D. (*Annals of Surgery*, p. 151, 1898).

The patient, a woman fifty-two years old, was admitted to Johns Hopkins Hospital, May 20, 1896. The day before she was thrown from a wagon, the wheels passing over the hips and lower abdomen. Pulse, 120; temperature, 100° F.; patient in stupor. On catheterization about 140 c.cm. of bloody urine was withdrawn. The bladder was distended with 500 c.cm. of boric-acid solution, and only 250 to 300 c.cm. could be recovered. Patient was etherized; operation by Dr. Bloodgood. After incision in median line, the space of Retzius was found to be filled with blood-stained urine, not ammoniacal, and the peritoneum was pushed upward by the extravasated urine. The peritoneum was opened to see if there was an intraperitoneal rupture of the bladder; as the peritoneal surface was intact, the peritoneal wound was immediately sutured. The rent in the bladder was located by passing a silver catheter into the bladder by the urethra; this was found to be a little to the left of the median line behind a fracture of the pubes. The rent was sutured, and an incision made in each inguinal region for drainage. The upper half of median wound was sutured, and the three wounds packed with gauze.

The following day the gauze was found soaked with urine, showing either another rupture or that the sutures had given way.

The patient was further treated by being placed in a hot bath, temperature 100° F., and kept in the bath almost continuously for forty days, being removed only a few hours at a time. There were at times irregular chills, and temperature once reached 107° F. Small bits of fractured bone from the pubes were removed June 8th.

October 8th the patient was discharged cured, with fracture united and sinuses healed.

February 13, 1897, the patient was operated on for hernia which had occurred at the site of one of the inguinal wounds.

The author concludes with an analysis of ninety cases of extraperitoneal rupture of the bladder complicated by fracture of the pelvis, collected from the literature.

Cystitis in Children Due to the *Bacillus Coli Commune*. DR.

HOUTINEL (*La Presse méd.*, November 18, 1896; abstract *Centralblatt f. d. Krank. d. Harn-und Sexual-Org.*, p. 455, 1897).

Houtinel showed five cases of cystitis, due to the colon bacillus, in girls between two and ten years of age, who had for a long time suffered from mild mucoid vulvovaginitis, and recently suffered from a more or less severe intestinal inflammation. The characteristic symptoms were mucous discharge from vulva, diarrhea, or tenesmus alvi, painful bladder tenesmus, urine small in amount, containing pus, albumin, colon bacilli in pure culture, irregular remittent fever of short duration. Under general dietetic and local measures the cases recovered in from two to three weeks, but easily recurred. It was not the vulvovaginitis but the enteritis which played the principal rôle exciting the cystitis; the former occurred often and was of long standing, the enteritis immediately preceded the cystitis. It formed the conditions under which bacteria could excite cystitis, by causing congestion of the bladder and diminution of diuresis, and perhaps also increased the virulence of the colon bacillus. The probable road by which they gained entrance into the bladder was by the urethra, from the infection of the vaginal secretion with the fecal excrement. The bacillus coli commune may also invade the bladder, during an enteritis follicularis, and grow there without setting up a cystitis. Trumpp has reported eight such cases of

bacteri-uria in girls and five in boys. Finally, a colon cystitis may arise in nursing infants without enteritis and without vulvitis, due to general infection. Although during life in nursing infants this appears to be a bacteri-uria, yet in the cases of Finkelstein these on autopsy are shown to be genuine catarrhal or ulcerotmembranous cystitis.

Etiology and Therapy of Bubo. DR. A. DEUTSCH (*Centralblatt f. d. Krank. d. Harn-und Sexual-Org.*, pp. 354 and 424, 1897).

This is one of the most important studies which have appeared in recent years upon this subject. It is based upon a study of suppurating bubo in 66 cases; 37 of the cases occurred with soft chancre and 29 with either hard chancre or a mixed sac. Experiments consisted in a bacteriological examination of the pus taken from the bubo, the ability to inoculate the pus upon the patient's abdomen, the bacteriological examination of those cases where the inoculation was successful, and a study of the length of time required for the bubo to heal.

Of the 37 cases occurring with soft chancre, inoculation upon the abdomen was successful, with the production of a typical chancroid in three instances only. In these three cases the pus from the bubo showed the presence of the Ducrey-Krefting bacillus. The pus obtained from the bubo could be classified under one of three categories: (a) Sterile pus; (b) pus containing streptococci or other pus-producing micro-organisms; (c) pus containing the Ducrey-Krefting bacillus either with or without the admixture of other micro-organisms.

It was found that the buboes containing sterile pus healed within a short time, and the auto-inoculations were unsuccessful; seven to ten days usually sufficed for healing to take place. Those buboes under (b) took a longer time to heal, fourteen to twenty-eight days, being longer in the case of strumous individuals, and inoculations in these cases were unsuccessful. Those in which the pus contained the Ducrey-Krefting bacillus took a much longer time to heal, and were the most difficult to treat. Auto-inoculation in these cases was successful.

Of the 29 cases occurring with hard chancre, here, too, auto-inoculation was successful in three cases only. In one of these cases the resulting ulcer indurated, becoming a typical hard chancre. The observations in these cases were parallel with those above. Those buboes in which the pus was sterile healed readily; those which contained pus-producing micro-organisms took a longer time. Here, however, antisyphilitic treatment sometimes had to be instituted before the bubo healed, and those in which the pus contained the Ducrey-Krefting bacillus were auto-inoculable, and the bubo took a longer time to heal.

The author further made a study of 700 cases of bubo operated upon in the clinic of Professor Schwimmer, and came to the conclusion that those cases in which simple opening of the bubo was made healed in a shorter time than in those cases where enucleation of the glands was attempted.

Two Cases of Sarcoma of Testis Due to Traumatism. DR. ROOSING (*Hosp. Tid.*, No. 29, 1896; abstract *Centralblatt f. d. Krank. d. Harn-und Sexual-Org.*, 93, 1898).

Roosing reports the case of two men who suffered contusion of the testis with resulting hematoma while mounting bicycles. In each case, after five or six months, respectively, a round-celled sarcoma was removed.

This makes in all twelve cases of sarcoma of testicle, due to trauma occurring in healthy individuals, which have been reported.

Announcement.

PRELIMINARY PROGRAM OF THE MEETING OF THE AMERICAN DERMATOLOGICAL ASSOCIATION, TO BE HELD IN PRINCETON, ON MAY 31ST AND JUNE 1ST.

On June 2d there will be a meeting in New York City for the exhibition of patients, drawings, microscopic specimens, etc.

Topic for general discussion: "Lupus Erythematosus." (1) Its etiology and pathology; to be presented by Dr. A. R. Robinson. (2) Its amenability to treatment; to be presented by Dr. J. C. White.

Dr. J. E. Graham: "A Case of Morphœa, with Atrophy of the Affected Side."

Dr. C. W. Allen: "Impressions and Conclusions from a Study of 5000 Cases Treated During the Year."

Dr. H. W. Stelwagon: (1) "A Report of Two Cases of Urticaria Pigmentosa." (2) "The Caustic Treatment of Epithelioma."

Dr. J. C. White: "Hydroa Vacciniforme?"

Dr. F. J. Shepherd: "A Strange Case of Granuloma of Face and Extremities."

Dr. J. A. Fordyce: (1) "Report of a Case of Universal Lichen Planus, with a Fatal Termination." (2) "Lupus Erythematosus in a Tuberculous Patient, with Autopsy Report."

Dr. J. Zeisler: "Trophic Dermatoses Following Fractures."

Dr. J. C. Johnston: "A Papular, Persistent Keratoderma." Report on an undescribed disease.

Dr. T. C. Gilchrist: (1) "A Case of Melanotic Sarcoma, Primary in the Skin, in a Negro, with the Pathology." (2) Title to be announced.

Dr. W. T. Corlett: Title to be announced.

Therapeutic Notes.

The Value of Antiseptic Soaps.—DR. CURZIO (*La Settimana Medica*) concludes as follows:

1. Sublimated (1 per cent.) soft soap is not aseptic and has not any antiseptic value, even if the experiment last for twenty-four hours.

2. Sublimated (1 per cent.) hard soap has very little antiseptic value, as it necessitates a continuous action of twenty-four hours to prevent the development of the pyogenes aureus.

3. Carbolic-acid (10 per cent.) soap shows less aseptic property and no antiseptic action at all.

4. Salicylic-acid (3 per cent.) and boric-acid (5 per cent.) soaps are aseptic in the true sense of the word; as to their antiseptic value, both have great power (the boric-acid soap being less so), and they prevent the development of the micro-organisms after a few minutes.

Carbolic and bichlorid of mercury lose a great amount of their power in contact with the compounds of the soaps, so in practice salicylic and boric soaps are better. But, if not for surgical purposes, *i.e.*, in dermatology, especially when they are used for a long time, all of them may be employed with benefit.—*St. Louis Med. & Surg. Journal.*

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CONGENITAL BULLOUS DERMATITIS WITH EPIDERMIC CYSTS.

By JOHN T. BOWEN, M.D.,

Physician for Diseases of the Skin, Massachusetts General Hospital, Boston.

THE following case came under my observation during the summer of 1896:

The patient was a girl of twelve, born in America, whose parents were natives of New Brunswick. There was no history of any cutaneous affection in her family, and several brothers and sisters were living and healthy. According to the account of the mother, an extremely intelligent woman, the first signs of cutaneous disturbance appeared at the age of three weeks, when a "blister" containing fluid was observed on the dorsum of the foot, and since then there have been constant recurrences of bullæ, limited for the most part to the extensor surfaces of the legs, especially the knees and feet, to the elbows, and to the backs of the hands and wrists. These bullæ appear more frequently in summer than in winter, and are often produced by a slight blow or knock.

The patient was a thin and rather anemic child, with hair of a pronounced reddish hue. There were numerous large and small lentigines upon the face and hands. At the time of observation, which included several visits at intervals of a fortnight, the bullous eruption was most prominent upon the knees and the dorsal aspect of the feet. These parts were covered with areas of deeply reddened, slightly pigmented skin, not very sharply bounded from the normal integument, and somewhat infiltrated. These hyperemic

and thickened areas had obviously been produced by the long-continued, recurrent eruption of bullæ in these places. At present these areas are found to be covered with bullæ, some of the size of a pea, others with a diameter of from half an inch to an inch, which rise abruptly from the hyperemic and thickened skin. The fluid in some of the bullæ is clear, in many others it is of a dark hemorrhagic color, as seen through the translucent wall. There was one very large hemorrhagic bulla on the outer aspect of the lower leg, otherwise the front of the knees and the dorsum of the feet were the only parts below the waist affected. The trunk was absolutely free from lesions. The elbows were affected in the same manner as the knees and feet, *i.e.*, there were areas of hyperemic, pigmented skin upon which were situated bullæ. In this situation the bullæ were mostly of small size, and usually filled with clear fluid, and were not so numerous as upon the knees and feet. The backs of the hands also presented a few bullæ, not very numerous at the time of observation, but according to the mother's testimony these regions had been repeatedly the seat of very marked outbreaks. The most prominent appearances on the hands were firm, whitish nodules, resembling milia. They varied in size from a pin's head to a small pea. They were most numerous over the knuckles where they showed a marked tendency to arrange themselves in groups, and in some places, as shown in the photograph, a distinct circular arrangement was seen, the edge of the circle being made up of these small white nodules, while the center was either free or occupied by one or two lesions only. They were present, also, to a less extent upon the backs of the wrists and upon the backs of the fingers, especially over or near the articulations. There were also a number of lesions on the thick skin of the palms, seated upon large reddened areas, similar to those described upon the knees, feet, and elbows. When these milia-like bodies are squeezed a soft, cheesy substance is given out. The nails of the fingers are striated longitudinally and brittle. The nails of the toes are brittle, crumbly, and broken. In the scalp there are a few doubtful crusted lesions, and on the side of the neck a reddened, thickened area of the diameter of an inch, covered with the milia-like bodies, but without any appearance of bullæ at the present time. The mucous membranes are intact, but the mother says that at a number of times there have been lesions in the mouth. In the areas occupied by the bullæ there are slight superficial cicatrices, evident only on close inspection, and therefore not well brought out in the photograph. On the face there have been from time to time a few bullæ, but no milia-like bodies are to be seen here, and there is no

FIG. I.



scarring. The trunk, upper legs, and arms, with the exception of the elbows, have never been affected. There is considerable pruritus accompanying the eruption, but the child is of an exceedingly ner-

vous, fretful temperament. The mother, without being questioned, volunteered the information that a knock or blow would often be speedily followed by a bullous outbreak.

To sum up, we have here a girl of twelve years, in whom, since three weeks of age, largē and small bullæ, with often hemorrhagic contents, have been constantly appearing symmetrically on certain regions of the body, *viz.*, the backs of the elbows, the backs of the wrists, hands, and fingers, the anterior aspect of the knees, and the dorsum of the feet. Occasional lesions have also appeared on the face, mucous membrane of the mouth, palms of the hands, and the anterior aspect of the lower legs. These bullæ are often produced by a slight knock or blow. In the regions where these bullæ have repeatedly occurred in great numbers the skin is intensely hyperemic and somewhat thickened, and there is slight but still perceptible scarring. In these areas, the seat of repeated bullous outbreaks, bodies closely resembling milia are seen. These have a tendency to group and form circles, and are most in evidence over the articulations of the hands and fingers.

This case at once brought vividly to mind those with a similar train of symptoms reported by Hallopeau, of which a brief outline may be given.

At the first meeting of the French Society of Dermatology and Syphilis, in 1890, the first case presented was by Hallopeau, under the title, "Une dermatose bulleuse congénitale avec cicatrices indélébiles, kystes épidermiques et manifestations buccales." The patient, a boy of seventeen, had suffered from the age of six weeks from constantly recurring attacks of bullæ, which were often filled with blood, and appeared symmetrically on certain parts of the body only, *viz.*, the extremities, elbows, and neck; they were also present on the mucous membrane of the mouth. They were often surrounded by an erythematous areola and were succeeded by cicatrices and small epidermic cysts in the form of miliary nodules. At one period the eruption had covered the body generally. There was much deformity of the nails, some of which had been lost. A microscopic examination of the miliary nodules by Darier showed that they were in fact epithelial cysts, seated in the upper part of the corium and probably due to the obliteration of the sweat-gland outlets and the follicles by a proliferation of connective tissue consecutive to the bullous dermatitis. Unfortunately, Darier was unable to trace a complete connection between the epithelial cysts and the underlying glands.

Hallopeau at the same time spoke of a case with similar appear-

ances that had been shown by Vidal the previous year. In this case, a girl of thirteen, the eruption had made its appearance during the first month of life. Besnier observed that bullæ filled with blood were sometimes seen to make their appearance under the action of a very slight bruise, or of any kind of an irritant, and that permanent scars were the common result. He had never seen a case where these phenomena were congenital, however. These cases had been described under the name of pemphigus.

In 1896 Hallopeau¹ again referred to the first case reported by him. The patient had remained under observation and had continued to have the same bullous eruption with hemorrhagic contents. Hallopeau had satisfied himself that the bullæ were often produced under the influence of light knocks. He then described a second case that he had just seen. The patient was a man of fifty-five who had been affected with the eruption since his birth. It consisted of constantly recurring outbreaks of bullæ with hemorrhagic contents, on the elbows, knees, backs of the feet, hands, fingers, and toes. The nails were prominently affected, and the bullæ were succeeded by scars and by the same milia-like nodules as in the other case. The outbreaks were almost constant, the slightest knock or bruise being sufficient to cause them to appear. An interesting feature of this case was that the patient's great grandmother, grandmother, and mother had had the same eruption limited to the same localities, and, furthermore, that the patient's son, at present in military service, was also affected in the same way. Within the last two months the eruption had become more generalized, appearing over the lower legs, about the axillæ and umbilicus, and on the back and thighs. There was also much pruritus, which had not been a feature previously.

In commenting on this case Hallopeau lays great stress on the remarkable symmetry that the eruption had assumed in the latest outbreak, where it had followed the distribution of the nerves. This fact, together with the mode of development of the bullæ under the influence of a slight knock or blow, he considers conclusive proof of the trophoneurotic nature of the eruption. Hallopeau recognizes the resemblance of these cases to the affection described by Goldscheider, Köbner, and Blumer, under the name of "hereditary tendency to the formation of traumatic bullæ or epidermolysis bullosa," and by Valentine as "hereditary bullous dermatitis." He considers, however, that the cases of which we have been speaking are to be distinguished from those described by Goldscheider, Köbner, and

¹ Hallopeau, *Annales de Derm. et de Syph.*, p. 453, 1896.

Valentine, by the inflammatory character of the eruption, by its seats of predilection on the dorsal aspect of the articulations, by the fact that the soles of the feet were not affected, by the cutaneous atrophy and scarring, by the epidermic cysts which followed the bullous outbreaks, by the development of bullæ without appreciable traumatism, and by the occurrence of acute outbreaks following the distribution of the nerves.

At a meeting of the Société Française de Dermatologie et de Syphiligraphie of June 3, 1897, Augagneur describes another case with a somewhat similar train of symptoms. In his case the person affected was a man of sixty-four; the affection was congenital and had the same seats of predilection—elbows, knees, and dorsal aspect of the articulations. The affected areas were transformed into a cicatricial reddened surface, resembling that which follows superficial burns. There were no epidermic cysts. In this case, also, an attack was observed when nearly the whole body was affected, accompanied by great pruritus. The bullæ were usually produced by a slight trauma. Augagneur believes that there are not sufficient grounds to warrant a separation of this and like cases from the epidermolysis bullosa hereditaria of Köbner. The constant feature is the production of bullæ by insignificant traumatism, and the preservation of the general health. Inconstant features are heredity, the spontaneous appearance of the bullæ, the complete disappearance of the disease in certain cases, and the formation of epidermic cysts.

Under the title "Epidermolysis Bullosa," Wallace Beatty¹ has collected a large number of published cases of congenital bullous eruption produced by traumatism. He reports three cases of his own, of a man and his two children. The man, who was forty-one years of age, had all his life been subject to the occurrence of bullæ, with sometimes clear and sometimes hemorrhagic contents which appeared especially on the elbows, knees, hands, and feet, as well as the scalp. On his knuckles he used to have groups of small yellow-white points, like those seen in his children, but he does not have them now. The skin over the areas that have been repeatedly affected was much reddened, loose, shiny, and wrinkled; one small milium was present in a patch of thickened and reddened skin below the left knee. The nails were either absent or imperfectly formed.

The elder child, a girl of three years, had been subject to the occurrence of bullæ since two months of age, when they first appeared on the hands. Since they have recurred constantly under the prov-

¹ *British Journal of Dermatology*, August, 1897.

ocation of a slight blow or bruise, on the elbows, knees, wrists, and hands, especially about the knuckles, and the feet. There are groups of "milia" over some of the phalangeal joints of the fingers and a few in the palms. There were a few small milia on the back of the neck, a place where there had never been bullæ. The nails were slightly affected. The younger child, a boy of eighteen months, was born with a bulla on the right thumb. There are reddened areas and bullæ on the same localities as in the sister's case, *viz.*, knees, elbows, hands, and feet, especially the extensor surface of the phalanges, and in the latter situation there were groups of milia. The milia-like bodies were examined microscopically and showed cysts seated just below the epidermis, of which the wall was made up of a narrow layer of epithelial cells, while the cavity was partly empty and partly made up of horny masses of cells that did not stain. A direct continuity with the epidermis could not be traced, and therefore their mode of origin was not determined. There could be no doubt that they were of epithelial origin, but their presence on the palms of the hands where there are no hair-follicles or sebaceous glands, showed that they were not necessarily connected with these structures.

Beatty also describes several cases under this same category that had been published under other headings, notably two cases reported by Wickham Legg in 1883 as congenital pemphigus persistent from birth. All of these cases, including those of Hallopeau, Legg, and his own, Beatty considers to belong in the same class with epidermolysis-bullosa, as described and illustrated by Goldscheider, Köbner, Blumer, Elliot, and others. Beatty gives a full *résumé* of all the published cases of epidermolysis bullosa.

In the *British Journal of Dermatology* for September, 1897, Colcott Fox illustrates the difficulties to be met with in our attempts to evolve a little order out of the present chaos of bullous eruptions. His title is "Pemphigus in a Woman of Nine-Years' Duration, at First Indistinguishable from Ordinary Pemphigus; afterward with All the Clinical Characteristics of Pemphigus Congenitalis (Epidermolysis); Epidermic Cysts; Essential Shrinking of the Conjunctiva." The patient, a woman of fifty-four, had been first attacked nine years previously, just before she had become pregnant with her youngest boy. The eruption was extensive and severe, so that she was twice admitted to the hospital. At this time there was no grouping or localization of the lesions. After the pregnancy the affection gradually assumed a chronic course with especial features. It was found that the bullæ arose from very slight injuries, such as from pressure

of the corsets, at the place where the teeth come into contact with the tongue and lips, and on the parts exposed to knocks and bruises, as the elbows, knees, hands, and feet. There were also bullæ on the mucous membrane, and there was a condition of so-called "essential shrinking of the conjunctiva." At one time there were numerous epidermic cysts on the regions that had been repeatedly affected, but at present these have disappeared. The skin on these seats of predilection had gradually become atrophic and cicatricial, so that it somewhat resembled an old scleroderma. The nails of the hands and feet had been permanently lost from the repeated occurrence of bullæ beneath them.

Fox asks if this case is to be grouped with epidermolysis. The only objections are that it did not begin until middle life, that it was like an ordinary pemphigus at the beginning, and that there was no family tendency. The latter objection can hardly be called such, as the rule of heredity has not yet been shown to be absolute in this affection. He considers that further experience is necessary before this question can be decided. Fox also thinks it an error for Hallopeau to separate his cases of congenital bullous dermatitis from epidermolysis. He does not think the points of differentiation referred to by Hallopeau sufficient to warrant an independent place for this group of symptoms. Epidermic cysts may occur in other types of pemphigus and may be consecutive to a simple burn.

In our attempt at classifying the bullous eruptions included heretofore under the vague and meaningless term "pemphigus," we should, as Dr. Fox asserts, tread cautiously. The difficulties in our path are very great, but it is to be admitted that in the last ten years a certain amount of progress has been attained. The cases of epidermolysis bullosa, or hereditary tendency to the formation of traumatic bullæ, as described by Goldscheider, Köbner, Blumer, Elliot, and others, are certainly entitled to an individual place, as they apparently have no relation with most other conditions of so-called pemphigus. We have here a congenital and often hereditary vulnerability of the skin to such a degree that a very slight injury, chiefly in the form of friction or pressure, causes bullæ to appear on the parts of the body so affected. The name epidermolysis given to the affection by Köbner is not appropriate, since according to Elliot's investigations we have to do with a true inflammation of the skin; a view that is also sustained by Unna.

When we come to consider the case reported at the beginning of this article we see that it corresponds exactly with those described by Hallopeau under the title "*Dermatose bulleuse congénitale avec*

cicatrices indélébiles, kystes épidermiques et manifestations buccales." Beatty's own cases and several of those enumerated by him in his article on "Epidermolysis Bullosa" have the same combination of symptoms. I must agree, however, with Augagneur and Fox that neither the scarring nor the epidermic cysts renders to these cases the right to a separation from the class of congenital bullous dermatoses, in which epidermolysis bullosa is included. Bodies undoubtedly identical in nature with these cysts have been found in other forms of bullous eruption. Hebra refers to a case related by Von Bärensprung where a very extensive crop of "milia" appeared over the greater part of the body of a girl who was suffering from chronic pemphigus. He relates, also, a case of his own where numerous small white nodules, thickly clustered in groups and circles, and in every way similar to milia, appeared on the dorsal and flexor side of the wrist and on the dorsal aspect of the fingers and toes in a case of recovery from pemphigus—localities where there had been previously pemphigus bullæ. It must be admitted, however, that the description is not sufficiently detailed to exclude the possibility that one or both of these cases belonged in the class of congenital bullous dermatitis that we have been describing, although it would not appear so.

Handford¹ reports the case of a girl of thirteen, who suffered for a year from a bullous eruption which was preceded by a polymorphous erythema, the bullæ appearing at the site of the erythematous lesions. The eruption appeared in crops with a high temperature, occasionally 104° F. When admitted to the hospital there was a bullous eruption in all stages of healing, chiefly on the buttocks and flexor side of the thighs and knees, on the ankles and toes, and also the extensor surfaces of shoulders, elbows, and wrists, and the dorsum and palms of the hands. There were bullæ on the mucous membrane of the mouth. The bullæ left smooth *pigmented cicatrices* on healing. About five months after the beginning of the affection the skin of the hands, wrists, feet, and ankles was red and cicatricial and covered with groups of opaque white spots, which had almost disappeared when the patient left the hospital. These bodies were found to consist of degenerated epithelial cells. Handford remarks that the partial limitation to the extensor surfaces of the upper extremities, the back of the shoulders, and inside of feet and ankles, suggests mechanical injury and irritation as an important cause. There is a plate added that illustrates the milia-like bodies upon the foot. It is to be noted that when the patient passed out of observation at

¹ "Tr. Clinical Society," London, 1838.

the end of a year, although she was much improved, isolated bullæ were still appearing.

This case has perhaps certain points of similarity with that of Fox, that has just been referred to. For how long the bullæ continued to form on the parts exposed to pressure and injury in Handford's case is not known; but we have here repeated outbreaks of bullæ, accompanied by high temperature. Later the process assumed a more chronic phase, and the occurrence of bullæ was chiefly limited to the parts of the body most exposed to injury, where a cicatricial condition of the skin, and the appearance of milia-like nodules followed the bullæ. It is certainly difficult to assign a place to either of these cases.

The cases of Handford and Fox, however, show conclusively that scarring and the appearance of epidermic cysts may follow bullous eruptions that are not congenital. It is to be noted, however, that in both of these instances the eruption had as its seats of predilection the parts most exposed to injury, and that both of the writers speak of this as a probable exciting cause. Again, cases occur similar in other respects to those of Hallopeau and the one described by me, where scarring and the formation of epidermic cysts are not present. In September, 1896, I saw a child of eight, whose eruption, according to the mother's story, had begun at the age of two years. It consisted of successive outbreaks of bullæ limited to the extensor surfaces of the elbows, wrists, knuckles, knees, and feet. There were also some lesions on the buttocks and thighs. The affected areas were reddened, thickened, and pigmented, but there was no scarring and no appearance of epidermic cysts. The nails were not affected.

I am in perfect sympathy with Colcott Fox, who urges that we should, with our present imperfect knowledge of etiological conditions, proceed cautiously in our attempts at subdividing the group pemphigus. We may fairly, however, set apart most if not all of the cases that have been referred to here, and it will conduce to simplicity and further advancement in our knowledge, if the term pemphigus, as far as they are concerned, is dropped. Congenital bullous dermatitis seems preferable to the term epidermolysis bullosa as being less prejudicial to any further knowledge of the etiology. It should be kept in mind that under this heading belong the cases described by Goldscheider, Köbner, Blumer and others, of hereditary tendency to the formation of traumatic bullæ, where bullæ arise repeatedly under the influence of often very slight traumatism; and also (possibly as a separate group) the cases to which especial refer-

ence has been made in this article, where the seats of predilection are the extensor surfaces of the joints, and where the additional features of atrophy and the formation of epidermic cysts, usually, but not always, are present.

PROSTATORRHEA SIMPLEX AND URETHRORRHEA EX LIBIDINE.

By F. R. STURGIS, M.D.,
of New York.

PROSTATORRHEA, as the name implies, is a discharge of prostatic fluid, analogous to what takes place, or is supposed to take place, in spermatorrhœa. While both names are more or less misleading, as they would imply a continuous and steady flow of prostatic fluid or of semen from the male urethra, the names having become so engrafted in the literature of the subject that it would be difficult, if not inadvisable, to attempt to find a substitute for them. It should, however, be distinctly borne in mind that this discharge is not continuous, but is more or less intermittent in character, except in very unusual cases, and is often apt, as will be seen later on, to be confounded with other discharges from the urethra, with which it has nothing in common. Another point that should be carefully borne in mind is this: that it is an entirely separate disease and has no connection whatever with chronic prostatitis, for, although this latter affection may be attended with some secretion from the prostate, which is somewhat similar in many respects to that which occurs in genuine prostatorrhœa, the causes which produce the two diseases are entirely separate and distinct. Chronic prostatitis results, in the majority of instances, from gonorrhœa, whether antecedent or present; whereas, in my opinion, prostatorrhœa vera is not at all dependent upon gonorrhœa. It may, and does occur in persons who have never had any venereal disease whatever, and, although the two diseases may produce symptoms of sexual debility, in the chronic prostatitis it is much more likely to occur than in the disease under discussion, except in so far as the mental agitation of the patient, under the impression that he is suffering from spermatic losses, produces psychical disturbances of the sexual organs and inability to perform properly the act of coitus. These two points being fully borne in mind, I shall ask attention to a study of the natural history of this disease as it usually appears. First, as regards its definition.

Definition.—Although this disease was hinted at, and perhaps more or less recognized by the older writers, for example, by Adams, under the name of “Prostatitis from Onanism,” no attempt was made to clearly define this affection until the year 1860, when the late Dr. S. D. Gross of Philadelphia wrote an article in the *North American Medico-Chirurgical Review* on this subject. He designated prostaticorrhea as an affection which is characterized by “a discharge from the prostatic gland, generally of a thin, mucous character, dependent upon a subacute or chronic inflammation of the glandular elements of that organ, and liable to be confounded with other lesions, as gleet, cystorrhea, and seminal losses, from which, however, it is usually easily distinguished.” He furthermore goes on to say . . . “the symptoms of prostaticorrhea are sufficiently characteristic. The most prominent, as already stated, is a discharge of mucus, generally perfectly clear, transparent, more or less ropy, and of varying quantity, from a few drops to a dram and upward in the twenty-four hours. It is seldom that it is puriform and still more rare that it is purulent; but it frequently contains mucopurulent casts from the ducts of the prostatic follicles, which appear like bits of thread floating in the urine. When considerable, the flow keeps up an almost constant moisture at the orifice of the urethra, and may even make a decided impression upon the patient's linen, leaving it wet and stained, somewhat in the same manner as in gleet or gonorrhea, though in a much less marked degree. The most copious evacuations of this kind generally occur while the patient is at the water-closet, engaged in straining, especially if the bowels are constipated or the fecal matter is uncommonly hard, or greatly distends the rectum, so as to exert an unusual amount of pressure upon the prostate gland.

“The discharge, whether small or large, is often attended with a peculiar sensation, referred by the patient to the prostate gland, from which it frequently extends along the whole length of the urethra and even to the head of the penis. In some cases, indeed in many, the feeling is of a lascivious, voluptuous, or pleasurable nature, not unlike that which accompanies the earlier stages of sexual intercourse. Not a few patients experience what they call a ‘dropping sensation,’ as if the fluid fell from the prostate gland into the urethra. Other anomalous symptoms often present themselves, such as a feeling of weight and fatigue in the region of the prostate, anus, and rectum, or along the perineum, with perhaps more or less uneasiness in voiding urine and a frequent desire to empty the bladder; some patients are troubled with morbid erections and their

sleep is interrupted by lascivious dreams." ("Gross on the Urinary Organs." Third edition. Philadelphia, 1876.)

In this definition I think that Dr. Gross has confounded the three affections, chronic prostatitis, prostatorrhœa, and urethrorrhœa, for his statement that it is generally a "discharge of mucus, perfectly clear, transparent, more or less ropy," does not agree with what we at present understand and recognize as the secretion from the prostate gland, but it is more or less similar in character to the discharge which we observe under like circumstances in cases of an increased secretion from Cowper's glands or the glands of Littré (urethrorrhœa). The secretion from the prostate gland is a thin fluid, which is cloudy, sometimes milky white; not clear and transparent, and is never sticky. There are other characteristics whereby the secretion from the prostate may be more definitely ascertained and which I shall consider later on, but in its gross appearance the difference between the two discharges is quite apparent, and if the discharge from the prostate is abundant, it has a seminal odor, which we recognize as being peculiar to prostatic fluid and present in no other of the genital secretions. Although this fact has been denied by Groszlik and Guerlain, from my experience I think it is present except in those cases where the prostatic discharge is very slight (Fürbringer). Indeed, I believe that the seminal smell is very seldom absent. Other statements which I should criticize are that "it is seldom puriform and that it is still more rare purulent." The discharge from the prostate in a genuine case of prostatorrhœa is never purulent; when it is, the affection is a prostatitis, acute or chronic, but not a true prostatorrhœa. Again, the "feeling of weight and fatigue in the region of the prostate, anus, and rectum, or along the perineum, or perhaps more or less uneasiness in voiding urine and a frequent desire to empty the bladder" pertains more to an inflammatory condition of the prostate or of the vesical neck than to the affection under consideration. His son, the late Dr. S. W. Gross, I think, appreciated that there was some difference between the secretions from the prostate and the urethra, but even his definition I regard as defective, inasmuch as he says in his work on "Diseases of the Male Sexual Organs": "Prostatorrhœa, an affection which was first described by Dr. S. D. Gross, signifies a discharge from the urethra of the secretion of the prostate gland, especially after defecation and micturition. It may exist with or without inflammation of the prostate, representing in the former event a catarrh, and in the latter merely a hypersecretion of the tubular glands of that organ. I believe that the malady

is generally due to passive congestion; and I am certain that it does not follow an attack of acute inflammation of the prostate;" and under the head of "Clinical History" he goes on to say "the most prominent symptom of the disease is the discharge of a thin and, as a rule, more or less milky, acid fluid from the meatus, which may be constant in appearance, but which is always expressed from the

FIG. 2.



PROSTATORRHEA.

1. Amyloid bodies. 2. Hyaline bodies. 3. Boettcher's crystals. 4. Epithelium. 5. Lecithin bodies.

urethra during the straining at stool, and during the forcible expulsion of the last drops of urine, or even during sneezing, coughing, or laughing."

One objection which I should make to this definition as given by Dr. S. W. Gross, is that a true prostatorrhea is never a catarrhal affection; it is a hypersecretion of the prostate; it is not attended with inflammation, either acute or chronic, and, in my

opinion, should be classed rather under the head of a neurosis than a true inflammatory product. When pus-cells or any evidences of a catarrh appear, we then have to deal with a prostatitis, be it sub-acute, acute, or chronic, but not with a prostatorrhea. There are microscopical points which might be discussed, but which I shall reserve for the portion of this section which treats of the differential

FIG. 3.



BOETTCHER'S CRYSTALS.

diagnosis which exists between prostatorrhea, spermatorrhea, and urethrorrhea, for it is, after all, the microscope which is the Court of Last Resort and whose verdict in distinguishing between the characteristics of these various urethral discharges is final. I shall, therefore, define prostatorrhea as being the secretion of a thin, turbid, or milky white fluid, usually of a slightly acid reaction, occasionally neutral, which is not ropy, which is not sticky, and which contains no evidences of inflammatory action, such as pus-cells and leucocytes; it contains amyloid bodies, although they are not a necessary accom-

paniment, for these amyloids may be found in the secretion of other portions of the genital tract and in the urine of women (Fürbringer, Groszlik), and upon the addition of a one-per-cent. solution of phosphate of ammonia produce the peculiar crystals which have already been described under the name of Boettcher's crystals, which crystals are never found in the secretion from any other portion of the genital organs except from the prostate. This disease is due to an irritation of the follicles of the prostate, stopping short of inflammation, whereby they become more or less dilated, precisely as the openings of the ejaculatory ducts in the prostate become flabby and dilated, thus favoring more or less leaking of the prostatic fluid, even upon the slightest provocation. The other symptoms which have been noted, such as the stiffening of the linen, etc., I attach no importance to, as the same thing occurs in urethrorrhea, and in this latter the discharge is also noted during stool and micturition, being more or less continuous according to the amount of irritation set up. Guerlain, also, seems to have been hopelessly confused between prostatorrhea, prostatitis, acute and chronic, and urethrorrhea, for in his thesis he speaks of prostatorrhea being intimately associated with chronic prostatitis, from which it cannot be studied separately, and that he will describe chronic prostatitis at the same time that he describes prostatorrhea, this latter being a constant symptom of the former. While M. Guerlain is correct in saying that chronic prostatitis is associated with a discharge of prostatic fluid (prostatorrhea) it is not the same thing as the disease which we are studying, as is evident when we read that the prostate is always enlarged in volume; that the prognosis is serious, and that this discharge is especially found in old men. None of these statements is true of prostatorrhea vera. My objections are supported by the fact of fourteen cases reported by him in his thesis, twelve occurred in old men over fifty years of age, some of them sixty-eight, seventy-one, and seventy-eight; the other two were in men forty-seven years old. These cases which he reports are instances of hypertrophied prostates in which not infrequently there is a prostatic discharge, but they are not cases of true prostatorrhea such as we are now considering. When speaking of the characteristics of the liquid effused from the prostate ("les caractères du liquide de la prostatorrhée chronique") his description is, in the main, correct; it is evidently prostatic fluid of which he speaks, but in so far as he writes that it is without odor and alalin to the litmus paper ("inodor; alcalin au tournesol") there he is incorrect, for prostatic fluid has a decided seminal smell and is usually acid in reaction. Again he is in error when he says

that the stain which the fluid leaves on the linen is always white in the center, but the edges diversified in color, being blue, yellow, green, and red. When these kinds of stains occur they are due to pus or blood (what the blue comes from I do not know) being mixed with the secretions from the prostate; an accompaniment of inflammation of the prostate and not a symptom of prostatorrhœa vera.

Etiology.—The etiology of prostatorrhœa has been ascribed to a variety of causes. The elder Gross stated that in most cases it was “traceable, either directly or indirectly to venereal excesses, unsatisfied sexual appetite, chronic inflammation of the neck of the bladder, stricture of the urethra, especially when seated far back, or hyperesthesia of this canal. Sometimes it has its origin in disorder of the lower bowels, as hemorrhoids, prolapse fissure, fistula, ascariides, or the lodgment of some foreign body.” Of all these symptoms I believe very few indeed can be referred to as a cause of prostatorrhœa. I do not believe it is traceable, either directly or indirectly, to any trouble of the bowel such as hemorrhoids, prolapse, etc. It is, so far as my experience goes, due to sexual excesses, either masturbation or over-indulgence in coition, or what is frequently the case, to that form of sexual indulgence known as “coitus reservatus,” where the parts being in a highly excited and hyperesthetic condition and where the normal gratification and relief to the nervous tension supplied by the emission is denied, an irritation is set up in the deeper portion of the urethra which is readily transmitted to the prostate; indeed, I believe that many of these cases are more reflex in character than anything else. I am exceedingly doubtful if it occurs as a result of gonorrheal inflammation, for in those cases in which it apparently does, we find evidences of inflammatory action in the resulting discharge, and we then have to deal, not with prostatorrhœa, but with chronic prostatitis, and although, as I have said, this latter affection may induce sexual disturbances, it has nothing to do with the subject in hand and such being the case I shall not discuss it, confining myself simply to a description of prostatorrhœa vera.

The younger Gross says, of 21 cases which he mentions in his work, “in 13 it was due to masturbation, in 5 to an extension of a gonorrheal affection, in 1 to masturbation and gonorrhea, and in 2 to onanism practised early in life and to marital sexual excesses.” [By onanism I suppose he means withdrawal.] “In all there was exaggerated sensibility of the prostatic portion of the urethra which was complicated by spasm of the compressor urethræ muscles in 2, and by stricture in 19.”

Masturbation undoubtedly plays a part in the production of this disease, but in this connection I incline to the belief that masturbation is less ardently and regularly practised after an early period of life in this country than it is abroad, if we may judge from the accounts in the various text-books and monographs on this subject, but undoubtedly where it is continued into later life, and especially where it is intemperately performed, it would set up an irritation, and that irritation would be sufficient to produce leaking from the prostate, although the same causes produce similar results in cases of urethrorrhea. A second cause of prostatorrhœa is the bad habit of withdrawal indulged in with the object of preventing conception of the woman without foregoing the pleasures of coitus. In neither of these two habits do I believe that much injury results if they be not abused, but the trouble with both is that indulgence in them does not produce the same satisfaction which coitus does; there is a constant hankering for more intercourse; this inordinate desire gives rise to more frequent copulation until hyperesthesia is set up in the prostatic urethra which is sought to be relieved by more coitus, and thus a vicious circle is established; the more the patient copulates the more the irritation and the greater the irritation the *more* the desire for coition. It is this over-indulgence in coitus which does most of the mischief. A third cause of prostatorrhœa is sometimes induced by severe and prolonged riding upon horseback and the bicycle, especially where the saddle is of the variety in common use in the Western portion of the United States. Of late years the objection which has been urged against the bicycle saddle has been much obviated by the manufacture of a broad saddle which distributed the weight of the rider upon the nates, instead of bringing it on the perineum as the old hog-backed saddle used to do.

Symptoms and Course.—The first thing that usually attracts the patient's attention to his genitals is the fact that the head of his penis is moist, and upon investigation the patient is greatly alarmed to find at the meatus a slight thin grayish- or milky-white fluid which perhaps can be squeezed out after steady stripping of the penis. This alarms him very much, for he immediately pictures to himself that this means a loss of semen, a loss of semen implies "loss of manhood," and a "loss of manhood" means ruin. If he gives himself time for further investigation he finds perhaps that this fluid is also excreted at stool, and as regards urination he sometimes notices that it occurs at the end of the act as a thin matter which looks differently from the urine which he has just passed. Associated with that is a sense of irritation in the crotch, a tickling in his urethra as

though a drop of fluid were running along the floor of the canal; a feeling sometimes of smarting and burning, especially at the end of urination, and attended occasionally, but very rarely, with a slight degree of tenesmus. The effect upon the patient's mind is oftentimes out of all proportion to the urgency or importance of his disease. With the idea of a spermatic loss firmly fixed in his mind, he already pictures himself as well on the road to perdition and it often requires the utmost efforts of the surgeon to drive the idea out of his head, and it is this mental condition which aggravates all the symptoms and which makes the patient a real sexual neurasthenic when probably there is nothing else the matter with him than a slight loss of prostatic fluid. True prostatorrhea, in my belief, is exceedingly rare. A large proportion of the cases which we see of so-called prostatic discharge are either urethrorrhea or else spermatorrhea, and, from my own experience, I am certainly satisfied of this fact: that a larger proportion of cases of urethral loss are really due to spermatorrhea than is generally supposed to be the case, notwithstanding the dictum of various eminent men: as, for example, Hammond, who writes that "in the whole course of my (his) experience I have seen but one case in which there was an escape of semen during defecation and in that there was some approach to an orgasm;" or Gross (S. W.) who says, "spermatorrhea is, on the other hand, one of the rarest of all diseases." I must admit that these experiences are entirely at variance with my own. Brought up as I was during the earlier years of my medical career with the belief that nearly all discharges of this character from the urethra was prostatic, I have, by later experience in using the microscope, been much astonished to find that in a very large number of these discharges spermatozoa were present, and wherever spermatozoa are found in any discharge from the urethra it is clear that the disease can be nothing else than a spermatorrhea, for, if in any given discharge of that kind spermatozoa are found we can exclude without any hesitancy whatever the fact of its being a simple prostatorrhea. Of course, I exclude those instances where an emission has occurred, whether ex coitu or ex manu, shortly before the examination has taken place.

If an examination be made of the prostate it is usually negative. The prostate is not enlarged, and except for the usual uncomfortable sensation produced by the presence of the finger in the bowel, there is no pain; none such as is found in the cases of prostatitis, acute or chronic. Neither is there any change in the consistency of the organ, it being neither softer nor firmer than in a normal condition.

The urine in these cases shows nothing special, differing in this respect from what is seen in cases of prostatitis, where mucus, pus, and blood are not infrequently found.

Pathological Anatomy.—The only author, who, so far as I know, has described the pathological anatomy of the prostate in cases of prostaticorrhea is Ledwich, but as his two cases are instances of chronic prostatitis, if, indeed, they are not tubercular infiltration of that organ, his specimens are of no value for the case in point. As the disease is not a fatal one, pathological specimens can hardly be looked for.

The late Dr. S. D. Gross considers the pathology of this affection to consist in chronic "catarrhal inflammation of the mucous follicles of the prostate, leading to an inordinate secretion and discharge of its peculiar fluid. Nevertheless, there are cases, and these are by no means uncommon, in which it (the prostate) is, to all appearance, either entirely healthy, or so nearly so as to render it impracticable, by the most careful exploration, to discover any departure from the normal standard. The discharge under such circumstances seems to be the result solely of a heightened functional activity, probably connected with if not directly dependent upon disorder of the seminal vesicles, the urethra, neck of the bladder, or recto-anal structures; in other words, upon reflected irritation." Indeed, in this last paragraph Dr. Gross has accurately defined a true prostaticorrhea as distinguished from inflammation of the prostate, which up to this point in his work, he has been describing. I myself believe that it is more frequently associated with a posterior urethral congestion or irritation than with almost any other lesion.

With regard to the course of prostaticorrhea it is usually tedious; inasmuch as it takes some time before the dilated prostatic ducts can regain their former tone and become as they were before.

Prognosis.—The prognosis of prostaticorrhea is favorable, and although the course of the disease is slow and tedious, in nearly all cases the disease gradually subsides and the patient recovers both his physical and mental tone.

Treatment.—The first question to be asked before instituting any medication will be: What caused the trouble? If due to masturbation or withdrawal, the first step toward recovery is to stop these bad habits. If there is reason to suppose that riding, either on horseback or the bicycle is the source of the trouble, these exercises must be stopped or very decidedly curtailed. For the rest the treatment resolves itself into constitutional or local. Iron, quinin, strychnia, outdoor exercise, especially walking or rowing, and attention to the

condition of the bowels are often of service. Drastic purgatives should be avoided, and I much favor the use of enemata of cool (not hot) water or of glycerin, either in combination with sweet-oil or else as a suppository, but whatever are the means used the aim should be to avoid straining at stool or allowing the feces to become hard.

The bromid of potassium, as suggested by Dr. S. D. Gross, I have not found to be of much value in these cases, but ergot and atropin as recommended by S. W. Gross and Rosenfeld, I have frequently found to be of use.

Locally, the two best remedies I know are the use of a full-sized cold steel urethral sound and the psychrophore of Winternitz, cold water being used. Cold hip baths are also of service, and in obstinate cases application of nitrate of silver through the endoscope, of from 5 to 20 grains to the ounce. The induced current of Ultzmann I have not tried.

URETHRORRHEA EX LIBIDINE.

This discharge from the genital organs must not be confounded with that which has just been considered, *viz.*, prostatorrhea. The two are entirely dissimilar both in the appearances of the flow and in the portion of the genital organs from which they are derived. It must also be distinguished from the urethrorrhea, which is derived from sexual intercourse with a woman during her menstrual flow, which Diday has described. It is not dependent upon venereal disease, and may be, indeed often is, unconnected with results of coitus.

Etiology.—Urethrorrhea is caused, as a general rule, by ungratified sexual excitement, especially if this be attended by frequent and persistent erections. Besides this cause, masturbation, sexual excesses and coitus reservatus may also induce this affection by producing an irritation of the urethral mucous membrane with hypersecretion of the glands of Littre and Cowper, causing them to pour out their secretion more abundantly than is usual and this is assisted by the pressure exercised upon these glands by violent and continuous erections. This discharge has been often mistaken for a gleet or spermatorrhea by patients, who are much alarmed by its appearance, but an examination with a microscope will readily reveal its true character.

Symptoms and Course.—Generally the first thing which attracts the patient's attention is the discovery of a thin, fluid, transparent drop at the head of the penis, on awakening in the morning with the usual erection. This drop is found to be sticky and tenacious, for on touching it with the finger it is capable of being drawn from the

meatus for some little extent, and on rubbing it between the fingers this drop imparts a soapy feel. If, as sometimes happens, this exudation leaks from the urethra during the daytime, the meatus is found to be stuck together, requiring sometimes a slight degree of force to open the lips of the orifice. This drop is not turbid nor discolored, but is perfectly clear, is unattended with orgasm or ejaculation, and has no spermatic odor. Where the urethral mucous membrane is irritated and the functional activity of the glands is stimulated beyond its normal bounds, this fluid may leak away during stool, and occasionally, but this is rare, it may come away from the patient at the end of micturition. It does not stain the linen, but it stiffens it, especially if the flow be abundant. The amount may vary from a drop to several drops, rarely as much as a half a dram. So far as the physical effects upon the patient are concerned, they are nil; the chief consequences are the mental disturbances which it produces upon the invalid, giving rise to the belief in him, as it nearly always does, that he is suffering from spermatorrhea. During stool, the patient will often inform the surgeon, that the act is accompanied with a sensation of scalding in the urethra and during micturition there is a sense of tickling, rarely a burning, in the canal. These symptoms are evanescent and speedily pass off. There is no alteration in the sexual functions except in so far as the patient's mind may produce a condition of physical impotence.

Microscopical examination of the secretion reveals nothing more than a few flat or round, not cylindrical, epithelial cells from the urethra, some mucous corpuscles, free mucus, and occasionally a few shreds, resembling the shreds found in any irritation of the urethral mucous membrane, but no pus-cells, no amyloid bodies, no spermatozoa, and no spermatic crystals (Boettcher's). (Fig. 4.)

The course of this disease is usually chronic, lasting for some time, and not being very amenable to treatment.

Prognosis.—The prognosis in this affection is favorable, for, although chronic and not responding readily to treatment, the disease ultimately disappears and during its course is neither exhausting to the physical powers nor is it attended by any serious consequences.

Treatment.—The treatment depends largely upon the cause which produces it. When due to constant erections without the power to relieve the sexual excitement, sedatives, such as the bromids, or any other anodyne which will tend to relieve the sexual excitement or erections, will be of service. It is not advisable, so far as my experience goes, to use astringent or other kinds of injection, as such are quite liable to set up an inflammatory irritation of the

mucous membrane and convert this unimportant discharge into a mucopurulent flow, which leaves the patient in a worse condition than if nothing had been attempted for his relief. As a rule, where the discharge is confined, as it generally is, to a drop or two, as soon as the patient's mind is relieved by the assurance that there is nothing spermatic or gonorrheal in his discharge, he thinks no more about his trouble and the whole thing disappears of itself. Where

FIG. 4.



URETHRORRHEA.

it is due to masturbation or to coitus reservatus, it is hardly necessary to say that the first step toward recovery lies in the abandonment of these pernicious amusements.

Differential Diagnosis between Spermatorrhea, Prostatorrhea, Urethrorrhea, and Gonorrhea.—The semen, as it is ejaculated in an emission, is a fluid presenting the appearance of a thick, gelatinous, opalescent, non-transparent, more or less viscid secretion, and is de-

rived from all the glands which are concerned in the sexual act. We, therefore, find collected together in the semen the discharges from the testicles, the prostate, the seminal vesicles, and the urethra, the morphological elements of which I shall now explain. Of the various secretions from the genitals, first and foremost under the microscope we find spermatozoa, which are an absolute and unfailing sign of normal semen. Next to them, we note in the dry, and sometimes in the wet, specimens, the peculiar crystals which are known as spermatic, or more correctly, the prostatic crystals (Boettcher's crystals). Besides these we see epithelia of various kinds, the tessellated, columnar, and round; hyaline bodies, lecithin corpuscles, amyloid bodies, mucous corpuscles, and sometimes pigment cells. This, I believe, constitutes a correct picture of the seminal fluid as we find it under the microscope. Its reaction is feebly alkaline and it has a peculiar smell (the seminal odor). (Fig. 5.)

In prostaticorrhea simplex we find amyloid bodies, but they are not constant nor do they necessarily come from the prostate, lecithin, and what is pathognomic of this secretion, the prostatic crystals (Fig. 2). If the secretion is simply prostatic, these crystals are not spontaneously formed, as a rule, although Fürbringer and Groschlik say that they may occasionally be produced by contact with some of the salts of the urine, but this is a point which has not, as yet, been thoroughly cleared up. They can be produced artificially by the addition of *one* drop of a one-per-cent. solution of ammonium phosphate, or naturally by the addition to the prostatic juice of the secretion from the vesiculæ seminales, which appears to be abundantly endowed with phosphorus. (Fig. 3.)

Another point well worthy of note is the character of the epithelial cells which are found. In the normal semen the epithelial cells are of three varieties: the flat, pavement epithelium, from the urethra; the round and columnar cells from both the urethra and the prostate, and lastly, the columnar epithelium, which is derived from the prostate as well as from Cowper's glands. These, in the secretion from the prostate, are often found grouped together, with the round cells in their interspaces, forming a species of mosaic, and these cylindrical cells Fürbringer regards as peculiar to the prostatic fluid. It occasionally happens that in this prostatic fluid a few scattered spermatozoa may be found, and this is especially the case if just previous to the examination the patient has indulged in coitus or masturbation, or has had a seminal emission. But they may also be present, and in my experience, almost always in a mutilated form, in cases of prostaticorrhea where the prostate is milked to obtain

the prostatic fluid, without the vesiculæ seminales having been submitted to the process of massage. Thus, I have under care a patient who is suffering from spermatorrhea. He has never had diurnal pollutions. He has occasionally, as every healthy man has, nocturnal emissions, but on stripping the prostate I sometimes obtain heads of spermatozoa, but not the bodies, and these, I think, probably

FIG. 5.



NORMAL SEMEN (SPERMATOZOA).

1. "Hodenzellen." 2. Amyloid bodies. 3. Hyaline bodies. 4. Boettcher's crystals. 5. Epithelium. 6. Lecithin bodies.

are retained in the openings of the ejaculatory ducts, which are in a flabby condition, and have probably been there for some time. In the case I mention, on the last examination that I made when these bodies were found, there had been no coitus for some weeks and no nocturnal emissions for three months, so that I am constrained to believe that these bodies had undergone some sort of degeneration in the opening of the ejaculatory ducts, and that the heads alone

have been expressed during the process of massage; but, as Fürbringer says, the presence of a few spermatozoa does not militate against the idea of the secretion being prostatic. I agree with him in excluding the cases which Black mentions in his paper, under the head of prostatorrhea, where he includes what to my mind are undoubted cases of genuine spermatorrhea; in other words, where spermatazoa are abundantly found. Indeed, I should judge from his paper that he is very hazy with regard to the correct definition of what constitutes a genuine prostatorrhea.

The gross appearances of the fluid are peculiar. It is not gelatinous such as we find in spermatorrhea. It has none of the secretion from the seminal vesicles. It is as I have already stated, a thin, turbid, milky-white fluid, and it has the peculiar seminal odor which is peculiar to the secretion from the prostate, and which is due, according to Fürbringer, to the lecithin which is abundantly found in this portion of the genital tract. Its reaction, also, is slightly acid, or at most neutral. Given these characteristics, there should be very little trouble in determining whether a given secretion is prostatic or not, and the fact that Fürbringer has met with one case in which the crystals of Boettcher did not appear in a fluid which he was satisfied came from the prostate, does not militate against the general truth of the points which are laid down here. One noteworthy fact, and this I believe to be important, is that in none of the normal secretions of the various glands which are concerned in the process of generation, are any pus-cells or leucocytes found. When these are present it always indicates an acute inflammation of some portion of the tract, but that, however, has nothing to do with our subject. In prostatorrhea simplex the secretion is not, as a rule, very abundant, and in some cases it is impossible, even with the most careful stripping, to get any free discharge from the urethra. But after the massage, on making the patient pass water in the manner advised by Fürbringer and Grosplik, in the last part that is passed the evidences of prostatic fluid are usually abundantly found.

As I have already stated, it is my belief that prostatorrhea is far less common than American surgeons believe or have been taught by their teachers and text-books, and in this I wish to be understood as excluding all cases of chronic prostatitis which may result from clap.

In urethrorrhea the secretion is thin, transparent and sticky, and if allowed to dry upon the lips of the meatus will close that orifice completely. There is no spermatic smell whatever to it and it is very sparse. Under the microscope it shows nothing beyond free

mucus, a few corpuscles, and perhaps shreds, together with columnar and pavement epithelium from the floor of the urethra.

In gonorrhœa, on the other hand, we find pus-cells, epithelium from the canal, varying from the pavement to the columnar epithelium from the prostatic ducts, according to the duration and severity of the disease, but none of the other characteristics, such as lecithin, crystals, or odor which we have found in the prostatic fluid, although occasionally we may find, according to Fürbringer and Groschlik, amyloid bodies which have come from some portion of the urethra. The secretion from the seminal vesicles is thick and gelatinous and presents nothing worthy of special note.

These, in brief, are the characteristics of the fluids which are secreted by the generative organs in man, and I think if the points laid down here are borne in mind, and if the microscope be used with knowledge and care there will be no difficulty in the surgeon making an accurate diagnosis as to the portion of the genital organs from which any given discharge comes, and I furthermore believe that if careful investigation of these secretions are made the surgeon will be astonished to find how few cases of genuine prostatorrhœa there really are compared with what had been taught in lectures and books. I am decidedly of the opinion that a large proportion of discharges from the urethra, apart from gonorrhœa, depending upon some sexual derangement or functional disorder of the genital organs is more frequently spermatic than prostatic, and, as I have already stated, I believe spermatorrhœa to be far less important as regards its ultimate consequences to the patient, outside of the mental impression produced, than diurnal pollutions, the true distinction between which two diseases I believe is not generally made by the American surgeon.

Use of Buckskin in the Treatment of Eczema.—DAVEZAC (*Jour. de Méd. de Bordeaux*, No. 51, 1897) was accidentally led to try the effect of a buckskin-dressing in a case of old-standing eczema of the leg in a working-man. He found that a small piece of buckskin placed between the ointment and the rest of the dressing greatly ameliorated the condition. Its good effects he ascribed to the flexibility of the buckskin, which allowed it to be molded to every part of the surface; to the ease with which it could be cleansed; to the fact that it did not markedly absorb the ointment used, and that, therefore, the part remained moist; and to the safety with which it could be removed, the newly formed epidermis not being torn away. The nature of the ointment employed mattered little. The buckskin did not dry, adhere, and tear as does linen; and it did not produce cutaneous erythema as does caoutchouc.—*British Medical Journal*.

KIDNEY CHANGES IN SYPHILIS.

By J. JUSTUS, M.D.,

First Assistant in the University Dermatological Clinic, St. Stephen's Hospital,
Budapest.

A NUMBER of works on this subject have appeared in the English language, but the authors have ascribed the albuminuria not to syphilis, but to the mercury administered. Rayer was the first author who decidedly asserted that syphilis may cause albuminuria. Since the time of Rayer a great number of authors have occupied themselves with this question, among whom I will mention, not quite in chronological order, Wagner, Barthelémy, Lancereaux, Axel Key, Fournier, Bamberger, Jacoud, Tommasoli, Wallas, Spiess, Beer, Virchow, Welander, Petersen. They have made clear the great practical, and especially the therapeutical, importance of this question, but they have not been able to explain many questions in this connection. As inoculation of syphilis on animals has never yet produced a certain result, we have only two sources of information: dissection and clinical observation.

There is one change of tissue caused by syphilis which the anatomist recognizes as a manifestation of this disease wherever he may see it. This is the gumma. The kidney gumma is a certain sign of syphilis, and an infallible proof of possibility of localization in the organ. The occurrence is a rare one. For instance, Wagner, among 9000 dissections, found only 3 cases, and Spiess, in 220 necropsies on syphilitics in the Charité in Berlin, made the diagnosis of gummatous nephritis 7 times. Beer has described three forms of renal syphilis: (1) Small, circumscribed growths in a healthy kidney or in one otherwise diseased; (2) simple interstitial hyperplasia, unequally diffused, with formation of cicatrices; (3) diffuse hyperplasia of nucleated connective tissue, to which is often added amyloid degeneration of the vessels, as well as a peculiar parenchymatous change with small fatty growths. Among these three forms Beer considers the first and the third characteristic. He adds a fourth, a pure parenchymatous change, which he regards with the second form as syphilitic only when other symptoms support this diagnosis.

Spiess is also of the opinion that there are various forms of renal syphilis, but he claims that only the nephritis interstitialis, especially the gummatous form of it, is to be considered as specific. Therefore, the dissector must have recourse to other aids if he is to

recognize the syphilitic origin of an amyloid or parenchymatous nephritis. Even if there are certain signs of lues it will still be difficult to distinguish between the changes caused by an intercurrent disease and syphilitic manifestations which do not clearly show specific character. Wagner found 63 times in 9000 autopsies kidney change referable to syphilis. Of this number there were 8 cases of acute Bright's disease, 7 chronic cases, 7 cases of granular, 6 of contracted kidney, 35 of amyloid or waxy degeneration, and 3 gummas, a percentage 0.7. Bamberger found syphilis as the origin of Morbus Brightii in two per cent.; 4 times an acute, 29 times a chronic, and 16 times an atrophic form; he has often seen an amyloid degeneration.

I have myself examined the records of St. Stephen's Hospital (I am indebted for this to Professor Pertik). Among 1500 dissections, 21 bore the diagnosis—syphilis. Among them were 10 cases of syphilitic nephritis, 4 of amyloid kidney, 3 markedly atrophic kidneys, the remainder being mixed forms. In all these cases the diagnosis syphilis was confirmed by the changes found in the other organs; in several the clinical diagnosis was corroborative.

With the help of Professor Schwimmer I examined the patients of the dermatological clinic in the St. Stephen's Hospital for the space of a year. Before I refer to the results obtained, I will enumerate the criteria, which I have made use of in every case, when determining the connection between the kidney symptoms and syphilis. One should distinguish in renal syphilis, as elsewhere, between the earlier and the later stages of the disease.

The Earlier Form.—The first condition in stating that an affection, slight or serious, of the kidney is the result of syphilis, is that the patient be proven to have had a healthy kidney before infection. The second condition is that the symptoms of kidney disease must have run their course with the other syphilitic manifestations. This second condition leads to the third, which requires that the changes in the urine (by this means renal change is recognized) should be improved or cured by a course of mercurials.

In the clinic I have examined the urine of 250 syphilitic patients. The examination was begun on the day of entry, and continued to the last day. Among the number are three patients, who, at the time of admission, had albuminuria. I will say little about them.

The first case was a girl of nineteen, who had been infected four months previously. On both labia there were numerous condylomata, enlargement of the groin glands, and also of the cervical glands; a few ulcers on the inner surface of the legs. Nothing was found on

the mucous membranes. The organs in the chest and in the abdomen were healthy. Examination of urine on the first day: 1200 c.c.; acid, light yellow; very thick, had a thick, white sediment; it contained one and one-half per cent. albumin, measured by Essbach. Microscopically were seen many leucocytes, changed kidney, epithelial débris, and, very rarely, hyaline casts. The patient received weekly one intramuscular injection of 0.08 gram of hydrargyrum sozodolicum, and during the week after the third injection hardly any traces of albumin were visible in the urine after having much decreased in the second week; the hyalin casts were very few; leucocytes and kidney epithelia were hardly to be seen. On the other hand, there are oxalates in larger quantity; one could even see one-half casts covered with oxalate crystals. At the end of the third week the quantity of the urine was 2000 c.c. It was light-yellow, with very little white sediment; the albumen, a barely visible sediment at the bottom of the Essbach. Under the microscope I could not find, although I have examined many preparations, casts from the kidney. On the day of the departure of the patient there was nothing pathological in the urine. At the same time with the clearing of the urine the ulcers on the leg and the condylomata were cured.

The second patient was an artisan of twenty-six, who had had syphilis four years ago, and who at that time was treated with inunctions. On admittance, condylomata lata were found on the nates, otherwise no sign of syphilis. No alteration of the internal organs, but edema on both ankles. In the urine three per cent. albumen and few hyaline casts. The patient was treated in the same manner with injections, and after four weeks the condylomata lata had disappeared, and the patient was dismissed. The state of the urine had not changed at all during this time, only the swelling of the ankles had quite gone down.

The third patient among those who on their admittance had shown signs of albuminuria, was a widow of thirty-eight years of age, in good condition. She had been taken ill about three months ago. On the day of her entry she had an *edema indurativum* of the right labium, with a small excoriation, at the same time condylomata on the left labium. In the urine less than one per cent. albumin. This small quantity has disappeared in a short time during treatment, and never returned during her four-weeks' stay in the hospital.

Among these three cases it is highly probable that in two of them, in the first and third, the kidney affection was caused by syphilis. I think one cannot doubt this connection in the first case, where the

albumin disappeared at the same time with the cutaneous lesions. Probably we had here to deal with the beginning of a kidney disease which, in consequence of the specific treatment, did not develop further. With regard to the second case, it was simply a kidney affection, independent of the syphilis.

The combined results of my investigations are as follows: Among 247 patients examined, 22 showed albuminuria during their stay in the hospital. Among these, 17 showed symptoms of the early stage of syphilis; 6 had chancre with enlargement of the glands; 11 syphilis maculosa and papulosa. (The greater part of the patients had not been treated at all before their entry in the hospital.) The albuminuria was generally of short duration, and disappeared during the course of treatment, with the exception of a case, which I will give in detail. At the same time the other visible signs of syphilis disappeared. This result answers to the third criterium, which I have mentioned above.

I consider it proper here to answer the question: Are the albumen and the other changes in the urine not caused by the influence of the mercury on the kidneys? I think with regard to our cases one can be easily clear on the point. It is only necessary to recall the single circumstance that we have in no case ceased the treatment, and that, in spite of this, the albuminuria always disappeared after a varying time, and did not return in the later course of the treatment. In one case only have I experienced the contrary. The patient, a well-nourished young man of twenty-five years of age, with a universal papular syphilide. After the third injection albumin was found in the urine, the quantity increasing in the course of the treatment. Hyaline, and later, granular casts, were seen in the sediment. This condition continued until the departure of the patient, while the exanthem disappeared.

Comparing our results with those reported in the works of different authors,¹ there is a striking agreement in the percentages of cases in investigations made in widely different times and countries. Among 250 syphilitic patients treated by me albuminuria was found in the course of treatment 22 times (9.2 per cent.). Fürbringer found it in eight per cent. Welander, among 280 cases, 14 times (five per cent.). Petersen, among 200 cases, 27 times. Petersen, however, enumerates among these also the cases of albuminuria spuria, in which, on account of blennorrhœa, cystitis, and other diseases, albumin was present. Independent of the latter, he has seen albuminuria in nine per cent. of persons in the early stage of syphilis.

¹ I have referred only to works which appeared up to 1893.

Tommasoli, who has studied thoroughly the question of clinical forms of renal syphilis, distinguishes early and late varieties. In the former he describes two types, the first generally appearing within a few months after infection, is a slight superficial lesion, demonstrated by a simple albuminuria. Gubler names it characteristically the roseola of the cortical substance, and thinks it is caused by transient hyperemia of the kidney. In the second form of the early type the albuminuria is more pronounced; there are casts and sometimes hematuria. Epithelial change is real and deep, and even in the connective tissue a cell proliferation is to be found. Tommasoli calls the first albuminuria syphilitica, and the second, glomerulonephritis syphilitica. The forms of which descriptions are given by other authors (Horteloup, Jaccoud, and Vallas) are easily fitted into Tommasoli's classes.

With regard to treatment, it is naturally identical with that of the other symptoms of syphilis. Practical difficulties would only arise in case the kidney disease was the only manifestation.

In *later forms of syphilitic nephritis* one cannot always use the criteria, of which I have spoken, as pertaining to the disease in the early stage. I may, however, mention five cases of the later form, one from the clinic, and the four others patients of Professor Schwimmer. The first case was that of a man of forty-five years of age. He was treated by Professor Schwimmer for an obstinate psoriasis palmaris, and also for other symptoms of the later stage on the skin and mucous membranes. The patient took antisymphilitic treatment carelessly and irregularly. In spite of his latent syphilis neither his wife nor his children have suffered. For five years he has felt perfectly well, until he began to complain of asthmatic difficulties. The house physician said they were caused by a moderate excentive hypertrophia of the left ventricle, and ordered potassium iodid and change of air. Some weeks later, in spite of continued treatment, albuminuria and numbers of casts appeared. The patient came again to Professor Schwimmer, who gave the opinion that the affection of the kidney might be a part of his syphilis. A course of inunction was ordered, which had good results, for the contents of albumin and casts disappeared after four weeks.

The second case was a woman, aged fifty years. She had had syphilis for fifteen years. She had an acute Bright's disease and luetic ulcers on the skin. The patient said that her syphilis was not recognized at the onset, and that later, when a correct diagnosis was made, treatment was not active. Edema and anasarca were present. These, as well as the other symptoms of renal disease, and the ul-

cers disappeared with the use of mercury. The patient lived ten years without relapse.

The first of these last two cases proves the truth of my assertion that it is not always possible to find parallelism of the kidney symptoms with other signs of syphilis. The second case is one of those in which it is impossible to prove that the kidney before the injection was in a healthy condition. The chief characteristic of these cases is the success of specific treatment. In the kidney, as in other organs, specific affections may attain such a degree as no longer to be curable. For, when the kidney affection has led to waxy degeneration or to granular kidney, the best antiluetic treatment will be useless. I recall a case observed in our clinic two years ago. It was that of a laborer, sixty-nine years of age, whose chronic syphilis had never been treated seriously, and during his stay in the hospital there was no amelioration. In the last stage of syphilitic cachexia the patient died. On dissection, not only the lungs, the liver, and the bones, etc., showed serious changes, but granular kidney with syphilitic scars was found.

The fourth case was one of late hereditary syphilis. It occurred in a young girl, twenty-three years of age, badly nourished and developed. She was taken to the hospital with an extensive exanthem of the body. This eruption consisted of ulcers of a circular form, with elevated edges. On the margins and in the neighborhood of some of the ulcers deep scars were to be seen. A few of the ulcers were partly healed, some were covered with a crust, and some showed a plentiful secretion and elevated margins. Taking into consideration the long duration, the early commencement of the disease, also that the patient appeared ten years younger than her age, and that she was rachitic and badly developed, we made the diagnosis of congenital syphilis. Besides the skin disease, there were slight aortic insufficiency, dropsy, and anasarca. The daily quantity of urine was little; the specific gravity, 1014; much albumin. We were, therefore, obliged to suppose a serious kidney affection as the cause of anasarca. The patient was six weeks under observation, and during this time the daily quantity of urine had increased from 400 c. c. to 1000 and 1050 c.c. It soon fell again to 600, 500, 400 c. c. about the time of death, which occurred at the end of the sixth week. The section of the kidney (Professor Scheuthauer) showed chronic parenchymatous nephritis, with scattered contracted patches of connective tissue. There were many minute patches of probably syphilitic origin, but no larger gumma. In the liver and in the bones of the skull syphilitic lesions were present.

To the question whether renal syphilis can be diagnosticated

from its clinical characteristics, one must answer usually decidedly in the negative, since we do not now take into consideration the improvement through the specific treatment.

The fact that the nephritides of syphilitic origin show by dissection the same forms as the nephritides resulting from other causes, seems to exclude the possibility of making the diagnosis from the symptoms, but Seiler proved that the absolute negation is not justified. In a celebrated case he made the diagnosis of gummatous nephritis, and the dissection by Birsh-Flirschfeld strengthened the truth of his claim.

The last case, which I shall describe, was similar in many respects to that of Seiler. A married woman, twenty-six years of age, who had been quite healthy up to her eighteenth year, acquired an ulcer on the under lip, which was accompanied by the swelling of the submaxillary and cervical glands. Her doctor had made the diagnosis as syphilis, but treatment was carelessly administered. At twenty the girl married, and had two healthy children, who are still living. The third sickened after his birth, with his mother, of small-pox, and died of it. In the case of the mother, the syphilis, which had been latent for some years, broke out after the variola. On the lower parts of the thigh ulcers appeared, in the bones rheumatic pains were felt, obstinate headache, and, after some days of high fever, an intense hematuria showed itself. At this time the patient came under the care of Professor Schwimmer, who found in the urine a large quantity of blood and albumin, and a great many casts. The blood in the urine disappeared in a short time, and the fever and the other symptoms also decreased. The urine again became yellow, had a little sediment, but contained albumin and a pretty large quantity of casts. The hematuria and the other symptoms returned twice within a period of two weeks, and were not influenced by tannin, iron, and quinin. Then, with reference to the ulcers on the skin, decoction of Zittmann was ordered, and the patient was cured in three-weeks' time of hematuria, nephritis, and her ulcers; she is at present quite healthy.

The similarity between the case of Seiler and this one is remarkable. In both cases an old latent syphilis was present; in both a sudden hematuria, with a great many formed elements, and much *débris* appeared, which disappeared spontaneously, but in both cases returned. The duration was much shorter in Schwimmer's case. It seems to be justified to diagnose the kidney affection of this case, and this assertion is supported by the fact of the presence and cure at the same time of the skin ulcers—as necrotic gummata in the renal tissue.

Society Transactions.

THE NEW YORK DERMATOLOGICAL SOCIETY.

TWO HUNDRED AND SIXTY-SEVENTH REGULAR MEETING, HELD ON TUESDAY EVENING, JANUARY 25, 1898.

DR. S. LUSTGARTEN, *President, in the Chair.*

A Case of Universal Lichen Planus, with Circinate Lesions and Marked Pigmentation.—Presented by DR. FORDYCE.

Woman, aged sixty-one. The eruption began in March, 1897, on the flexor side of the forearms, as itching, papular lesions. After two months it spread suddenly over the entire body. As a result of the eruption on her scalp she has lost much of her hair. Many of the groups of papules have circinate and gyrate outlines, the peripheral lesions enclosing pigmented areas. In the centers of some of the pigmented areas recurrence of the papules can be seen. The face is the seat of numerous lesions. The palms and soles are comparatively free.

When first seen, many of the lesions were scaly; so much so that the resemblance of the eruption to psoriasis was quite marked. The only etiological factor present or that can be elicited was mental worry and insanity following the death of a daughter three years ago.

DR. J. C. JOHNSTON said the pigmentation in this instance might perhaps be partially explained by the fact that the patient had been originally treated with arsenic, given internally.

DR. S. LUSTGARTEN said that one of the most unusual features of this case was the extension of the lesions to the face and scalp. This rarely occurs in lichen planus, although he had seen several instances of it.

DR. FORDYCE said that when the patient had first come to his clinic, she was improving under the use of chrysarobin, and on discontinuing that remedy many of the lesions reappeared. The speaker said he did not know whether the patient had been treated with arsenic internally, and he did not believe that the drug could be held wholly responsible for the pigmentation, although it might have had some influence in bringing it about. Dr. Fordyce said he had applied Unna's salve externally without apparent effect. He expected to resume the use of chrysarobin.

DR. S. SHERWELL said that many years ago, Dr. Taylor, in discussion on this subject, had recommended the use of chlorate of potash and nitric acid, internally.

DR. ELLIOT said he had found the use of chlorate of potash and nitric acid very useful in the acute, milium form of lichen planus, but not in the chronic type of the disease.

DR. C. W. CUTLER said that in one case where he had employed it, the patient recovered in less than four weeks.

DR. FOX said he had given the treatment suggested by Dr. Taylor a thorough trial in a number of cases of lichen planus—most of them chronic—without any notable effect. The course and duration of this disease is so variable that it is impossible to say in a given case whether it will get well, with or without treatment, in a few weeks, or whether it will last for many months. Many of the known methods of treatment which are deemed efficient in the acute cases are of no value in the chronic cases.

DR. ELLIOT said he thought that the internal use of chlorate of potash

and nitric acid had a decided action on the eruption in the acute cases of lichen planus. He had seen instances where this method of treatment alone caused involution of the disease, while the sensory symptoms subsided very rapidly. The speaker said he thought Unna's ointment was also very beneficial in the treatment of this disease, but the fact should not be lost sight of that the strength of the ointment should be made to fit each individual case. In some cases a much stronger ointment is required than in others. Pure carbolic acid is very useful in the hypertrophic cases of long standing, where the lesions are more or less warty; it is useful in the treatment of the lesions of lichen planus rather than in the treatment of the disease itself.

DR. S. SHERWELL said that in a number of cases of lichen planus of the ordinary type where he had resorted to the chlorate of potash and nitric-acid treatment, no special effect was produced, although in two or three instances it did act beneficially. He had seen the eruption disappear most readily, perhaps under applications of bichlorid ointment or lotions of about one grain to the ounce. He always suspected constitutional, or if you will, diathetic history, usually lithiasis, and gave treatment accordingly.

DR. C. W. ALLEN said that about a year ago he had had under his care a young lady with a generalized lichen planus, and during her treatment arsenic was administered quite freely. When the eruption had disappeared there were pigmented areas at the sites of many of the previous lesions. Very recently he had received a letter from the young lady stating that the pigmentation was still apparent, especially upon the limbs below the knees, although gradually disappearing. In that case, Dr. Allen said, he had attributed the pigmentation to the arsenic.

DR. FOX said he had seen cases of lichen planus where he was positive that no arsenic had been given, followed by marked pigmentation of the skin. He had also observed this in a few cases of psoriasis. He was inclined to think that the pigmentation in such instances is due to a peculiarity of the disease or of the patient, and was not the result of the administration of arsenic.

DR. ELLIOT said he recently saw a patient who for six years had suffered from an eruption of lichen planus on the legs, for which he had received no treatment for several years, and in that case the legs are now covered from the knees down with pigmentary patches. That patient had never received any arsenic, and the speaker thought the pigmentation was unquestionably due to the disease and not to the treatment.

DR. LUSTGARTEN said that in lichen planus as in other conditions resulting from chronic inflammation or infiltration of the skin, we are apt to have pigmentation, especially in locations where the circulation is not favorable to the quick absorption of the products of inflammation. We see the same thing in lesions of the lower extremities due to syphilis, etc. On the other hand, it cannot be denied that arsenic has some influence in the production of melanotic patches.

Dr. Lustgarten said he had employed chlorate of potash and nitric acid in a number of cases of lichen planus, with negative or dubious results. He also called attention to the fact that the chlorate of potash is a treacherous remedy and should not be given in large doses unless the patient can be kept under more or less constant observation. Unna's ointment had also failed to come up to his expectations. In one case where the above methods of treatment proved of no avail, a prompt effect was produced by the internal use of mercury, from 3 to 4 grains of the tannate being given daily. On the whole, he regarded arsenic as the most satisfactory remedy.

DR. R. W. TAYLOR said that many years ago, about 1872, when comparatively little was known about lichen planus, he saw a case (which was

afterward reported) where the internal administration of chlorate of potash and nitric acid seemed to produce almost a magical effect. It immediately stopped the intense itching, which was so severe that the patient, who was a very large woman, scratched herself with her finger-nails, producing linear scratch-marks in which papules afterward developed. Dr. Taylor said that Erasmus Wilson's description of lichen planus can justly be regarded as a masterpiece, and is entitled to rank with Hebra's equally succinct and graphic description of lichen ruber.

DR. J. C. JOHNSTON referred to the disintegrating effect of chlorate of potash on the blood-corpuscles, if given in large doses. The drug has been known to produce epistaxis and methemoglobinuria, and the speaker said he knew of one instance where it gave rise to a grave form of anemia.

DR. ELLIOT said one would hardly expect such pronounced effects in cases where only moderate doses of the drug were given.

DR. JOHNSTON replied that the element of a personal idiosyncrasy should not be lost sight of.

A Case for Diagnosis.—Presented by DR. G. H. FOX.

Mrs. R., aged forty-seven. The patient has an eruption which first made its appearance four years ago. It began on the back of the ears and at the edge of the hair, then extended to the arms and later to the thighs and buttocks. It has been slowly spreading since it first appeared. The eruption is dry and purplish-red in color. The patches on the arms are composed of groups of papules with almost healthy skin between. There are no lichen-planus lesions present. On the occiput the eruption is scaly and eczematous in appearance. Upon the buttocks there is much infiltration and some excoriations. The skin is markedly rugous.

DR. C. W. CUTLER said he thought the case was one of pityriasis rubra pilaris, with a secondary dermatitis from scratching and irritation.

DR. A. R. ROBINSON said he was not prepared to offer a positive diagnosis. He did not think the case was one of pityriasis rubra pilaris. It was possible that the eruption had originated as a catarrhal dermatitis in a person more or less gouty.

DR. J. A. FORDYCE said the lesions on the arms and about the hair were suggestive of chronic papular eczema, while those in the gluteal regions resembled pityriasis rubra pilaris.

DR. ELLIOT said that while he did not care to venture a positive diagnosis, he thought the case was one of atypical pityriasis rubra pilaris.

DR. J. C. JOHNSTON said he did not see how the case could be classed as one of eczema. There was no history or evidence of any catarrhal condition, and the lesions had evidently been very vigorously treated without any signs of exudation. The speaker said he agreed with Dr. Elliot that the case was probably one of pityriasis rubra pilaris.

DR. A. R. ROBINSON said he did not think the absence of a visible exudation on the free surface militated against the diagnosis of eczema in any subject and especially in a gouty one. Several years ago, Dr. Robinson said, he had shown to the society a case of eczema of the legs of over ten-years' standing; the case was presented without any history to the members and most of those present agreed in pronouncing it one of psoriasis, on account of the absence of serous exudation on the free surface and from the manner of spreading of the lesions by peripheral extension, yet the case was positively one of chronic eczema in a very gouty subject.

DR. ELLIOT inquired how Dr. Robinson explained the fact that in the case under discussion the lesions were very plentiful in those regions where there are very few sweat-glands: as, for example, around the buttocks, while those areas where there are many sweat-glands have remained comparatively free?

DR. ROBINSON said he did not know. He asked why it is that after the internal use of iodine we may get an acne in some regions and not in others. Eczema in gouty subjects appears to favor certain locations. This may be due to a special vulnerability of the sweat-glands in those regions, but such views are only guess-work and will remain such.

DR. SHERWELL said he agreed with Dr. Robinson that the eczema not infrequently seen in gouty subjects seemed to favor certain localities. He could not explain why this was so, but clinically he had often observed it.

DR. S. LUSTGARTEN said he did not think the sweat-glands bore any close relation to the occurrence of gouty lesions, which seem to originate in the interstices of the connective tissue, where a primary deposit of urate of soda, as Riehl has shown recently, is followed by inflammation; in this he did not think the sweat-glands played any rôle, as gouty deposits are generally formed in places which do not contain coil-glands.

As regards the case under discussion, the speaker thought it was an atypical one. French observers would probably regard the eruption as due to toxemia of internal or some other origin. While it bore some resemblance to pityriasis rubra pilaris, yet it lacked some of the characteristics of that disease; *i.e.*, absence of symptoms on palms, soles, face, etc. Kaposi would probably regard it as a case of lichen ruber acuminatus, as distinguished from pityriasis rubra pilaris, which opinion he himself is inclined to join.

DR. FOX, who had shown the case, said that by daylight the lesions on the arms had a characteristic purplish hue which had reminded him of lichen planus. The absence of any lichen planus lesions on the arms and forearms, however, had led him to abandon that diagnosis. A careful examination had also convinced him that the case was not one of eczema. The localization of the eruption, its rugous form, and the appearance of the patches were certainly very suggestive of lichen ruber, or the pityriasis rubra pilaris of the French. Dr. Fox said he would watch the case and see how it developed. If it was lichen ruber, he would expect later on to see a fresh outbreak of the conical papules, which are characteristic of that disease. None of these papules are apparent now and he did not know whether any had existed before he saw the patient.

Dr. Fox said he had never seen any characteristic form of eczema in gouty subjects. An eczema may appear in such subjects, but a similar eruption may appear in persons who are not gouty. It is possible that there is a special form of eczema which is dependent on the gouty condition, but too much is said about it that is vague or indefinite.

DR. R. W. TAYLOR spoke of a peculiar form of eruption, which, for want of a better name, he has classified as an eczema, occurring usually in large, well-preserved, vigorous men, generally good eaters and sometimes rather partial to alcoholic stimulants. The eruption is usually confined to the feet, involving one or more toes, and to the gluteal regions. There is generally no trouble about the anus. The eruption begins as a dermatitis, with the formation of papules, and in the gluteal region the inflammation may extend until the gluteal fold becomes infiltrated with the inflammatory products. In some cases the disease is better in winter and worse in summer; in others, *vice versa*. This form of eruption, Dr. Taylor said, he had found it very difficult to cure. Unusually, soothing and desiccating remedies, such as tar or diachylon ointment, with salicylic acid, or the compound tincture of green soap, have given him the best results.

DR. ROBINSON said he thought the class of cases described by Dr. Taylor were of parasitic origin. In reply to Dr. Fox, the speaker said that while he did not think there is such a thing as "gouty eczema," he did think there is an eczema which is prone to occur in gouty subjects and which has a

more or less distinct clinical character, although not a pathognomonic one. It has been shown that in old, gouty subjects, with damaged kidneys, urate of soda or uric acid is eliminated by the sweat-glands and is found in crystals on the surface of the skin, and there is no reason why these agents should not give rise to a dermatitis, as they probably do in passing through the kidneys—an interstitial nephritis, which would render the ground more favorable for infection from without.

DR. ELLIOT said he fully agreed with Dr. Robinson that gout may act as a predisposing factor in the production of parasitic affections, rendering the skin more vulnerable. The same is true of syphilis and certain other constitutional affections.

As regards the class of cases described by Dr. Taylor, Dr. Elliot said he had seen a number of them and had looked upon the eruption as a parasitic eczema, which readily disappears under strong antiparasitic preparations. His favorite remedy is pyrogallic acid.

Report of Cases Presented at Previous Meetings.—DR. ALLEN said that his patient, with necrotizing chilblain lesions of the hand, shown at the last meeting, is improving under mild applications and the protection afforded by wearing rubber gloves in bathing. Last week he developed a number of subdermic nodules, suggestive of erythema nodosum, while some of the older lesions are undergoing central necrosis. As soon as warm weather comes on the lesions improve.

NEW YORK ACADEMY OF MEDICINE.

SECTION ON GENITO-URINARY DISEASES, STATED MEETING, HELD ON TUESDAY EVENING, FEBRUARY 8TH, AT 8.15 O'CLOCK.

Janet's Modification of the Benique Sound, for Strictures of Small Caliber.—Presented by DR. J. VAN DER POEL.

This is very similar to Guyon's adaptation of the same instrument, except that it begins with No. 16 of the Benique scale (Charnière scale 8). It is intended for so-called tight and undilatable strictures, which at first admit a filiform only perhaps, but which we can dilate up to 8, 9, 10, or sometimes to 12 or 14 (Charnière). When we can proceed no further, and when at each subsequent attempt, we find ourselves blocked at the same point, Janet claims that the fault lies with the instrument and not with the stricture, and this is so in many cases. Bougies have too little resistance to force the stricture, and if they are made too rigid, the point of such a small instrument is in danger of wounding the urethral mucous membrane, and would be too apt to make false passages, in the same manner as small steel sounds.

In this modification, the point of the sound is prevented from making false passages, by the addition of the long guide which is screwed on the tip of the sounds, which are all tapered, so that there will be no point of resistance at the place of attachment. The guide or guides are No. 5 Charnière, so that we really can begin with sound dilatation, without danger, at that stage, if necessary. Several precautions are, however, important:

1. Never use force, always operate with gentleness.
2. Never dilate with an empty bladder, so that the bougie may curl up within the bladder without injury to its walls. It is preferable to have the bladder filled with boric-acid solution rather than with urine, but where the former seems impossible, we simply direct the patients not to pass water for some hours previous to the sitting. There are very few cases, however, where the bladder cannot be filled with syphon pressure—no matter how

small the stricture—but we should not attempt to pass a catheter, as it would be useless.

3. Special care as to antisepsis, to prevent infection of the bladder. The steps of the operation are as follows:

1. Allow the patient to urinate, and empty the bladder.

2. Wash thoroughly the gland and prepuce with a bichlorid solution, 1 to 2000.

3. Wash the urethra, by means of syphon, down to the site of the stricture, with one-half liter of boric-acid solution.

4. Fill the bladder with boric acid by syphon.

5. Cover the glans with a bichlorid compress. This is very important, as the fingers of the left hand which grasp the penis, while the bougie is being introduced, are used to screw the bougie to the sound at the meatus, and if infected from the prepuce, are liable to communicate the infection to the instrument, which is then carried directly to the bladder.

6. Pass the sound, attached to the guide, and dilate.

7. Allow patient to empty the bladder of the boric acid.

Should gonococci be present, avoid, if possible, the passage of a steel instrument, as it is too apt to carry the infection backward and set up an epididymitis.

If, however, the stricture be a close one (below 15, Charnière), where the swelling of the urethral mucous membrane in consequence of lavage with permanganate of potash, would be apt to interfere with micturition, then, nevertheless, it will be necessary to first dilate up to 15, at which stage, we can begin the permanganate washings, 1 to 4000, giving two or three courses of twelve sittings each, until the gonococci have disappeared, proven either by the beer test, or nitrate of silver, or by coitus, or expression of the prostate, after which, if they are no longer present, we can continue with the dilatation.

DR. LAPOWSKI said he had had no experience with the instrument. He believed it dangerous to dilate the urethra in the presence of gonococci. Dr. Van Der Poel said he did it because he had to, but here we must consider the question of secondary infection.

DR. VALENTINE said he did not agree with Dr. Lapowski in regard to the innocuousness of a stricture at any part of the urethra; nor did he think it dangerous to dilate such strictures. By dilatation, we stimulate the absorption of the stricture and consequently we remove the cause of the irritation and the reflex influence produced by the stricture. He did not believe that there was too much dilation of stricture done. Guyon has shown that the mere presence of an instrument in the urethra occasions a dynamic influence. He believed that the presence of the instrument in the urethra stretched the stricture and accomplished all that one could desire. The danger of infection is set aside by the irrigation which is given subsequent to the dilatation.

DR. SWINBURNE thought that Dr. Valentine had mistaken the point referred to by Dr. Lapowski. The question was as to the safety of using instrumentation in a urethra containing gonococci and having a stricture so narrow that the permanganate irrigations might cause such edema of the mucous membrane as to close the canal entirely. In these cases there may be objection to the use of the irrigations. We must certainly dilate or do an external urethrotomy. It is certainly feasible to insert a filiform bougie and gradually dilate without irrigations until the irrigations could be used. As a rule, it is better to use irrigations and it is certainly safer. In such circumstances he thought it best to use the instrument and to irrigate afterward. He had never seen a dilatable stricture so close that irrigation was

impossible; in the majority of such cases, however, he found nitrate of silver in weak solution better borne than permanganate.

DR. VAN DER POEL said the procedure depended entirely upon whether gonococci were present or not. The danger of passing a sound was the possibility of infecting the posterior urethra and subsequently causing epididymitis. In these cases the permanganate solutions are used.

DR. SWINBURNE claimed the great objection was the swelling of the mucous membrane, and this swelling is sufficient to prevent urination.

Tumor of Testis.—Presented by DR. FULLER.

He said the case was an interesting one because it was so obscure, and he did not know what the matter was until he operated. The case presented evidences of tuberculosis of the epididymis. There was a certain amount of hydrocele. It also resembled syphilis of the epididymis, but there was no syphilitic history. There were no nodules and the testicle was not enlarged specially. The specimen was hardened in formalin. When he first saw him he drew off a little of the fluid in order to get a chance to do deep palpation. The cord was not at all infiltrated and there was no tenderness of the organ. He found that the testicle, although not enlarged, was quite hard which it ought not to be in either condition as a rule. In many cases one can dissect off the epididymis, leaving the testicle, and again can dissect off the cord and leave the testicle. One other point that made the case look like syphilis was that the outside layer of the tunica vaginalis was involved and was much thickened. Reclus has written a thesis on the subject and called the condition pachyvaginalis syphilitica.

DR. BLANCHARD of the City Hospital, said he thought it was an endothelioma or alveolar sarcoma.

DR. KLOTZ said he had recently seen a specimen which showed about the same nature and had been extirpated as a syphilitic new formation. It was full of tubercle bacilli when examined. It had about the same consistency and the same color. He was surprised to find symptoms of syphilitic testicle.

Prostatitis and Seminal Vesiculitis. A Study of Three Cases.¹

DR. GEORGE K. SWINBURNE read a paper with this title.

DISCUSSION.

DR. G. E. BREWER said that he had been of opinion that of these cases of chronic urethritis, a large proportion were cases of chronic follicular prostatitis. There was found shreds in the urine which might point to the condition in the prostate. This may or may not be associated with some other condition. It was more commonly associated with vesiculitis. There was no question that massage was a very valuable remedy and when combined with irrigations by the method he had employed gave good results.

DR. F. TILDEN BROWN said he had frequently met with cases of follicular inflammation of the prostate that led to an empyema of the seminal vesicles. He had seen few clearly marked cases such as Dr. Swinburne reported. His impressions were that the cases could only be successfully treated as Dr. Swinburne had outlined. Great gentleness is required. He thought a great deal of time would be lost and damage done if, instead of a simple inflammatory condition it should turn out to be one of tuberculous disease of the prostate. There was one case which had interested him and which Dr. Swinburne saw with him about one year ago. The man came to the hospital to have something done for severe pain in the pelvis which originated in the back and buttocks, and which completely prostrated him at certain times. The pain was most intense after his day's work in the

¹ See page 119.

field. His history was that eighteen or twenty years previously he had an attack of gonorrhea. He had been married, but had no children—only mis-carriages. He did not find himself lacking in sexual vigor but found that after the sexual act a feeling of discomfort showed itself. The seminal vesicles were enlarged and distended. Every effort of the finger to empty the vesicles was without avail. It looked like an unquestionable occlusion of both ejaculatory ducts between the seminal vesicles and the prostate.

DR. E. FULLER said, in regard to the question of prostatitis and seminal vesiculitis and their relative frequency, that he knew it was a common idea among those who studied the subject to take the view that the prostate was apt to be affected more often than the seminal vesicles. A great many cases show vesiculitis without any evidence of lesion in the prostate either primary or secondary. Tumefaction over the region of the ejaculatory ducts may reach the size of an orange. He had a case a little time ago, a man in the fifth week of gonorrhea who had pronounced symptoms; he found it difficult to insert a finger into the rectum on account of the tumefaction. He put the patient in the Symm's position and cut through the mucous membrane carefully and got pus back between the seminal vesicles. He could feel the prostate body normal in size. He packed with gauze and the patient got well in ten days; the prostate was perfectly normal. That was a case that had involved the soft fibrous tissues outside the seminal vesicles as well as the capsule of the prostate. Anatomically, there is no case of follicular prostatitis; the gland itself becomes more or less involved.

He referred to another case where he did an extirpation of the seminal vesicles. Man, cab-driver, forty-five years of age. Had had retention. He was cut for large stricture and remained six or eight weeks in the hospital. Since drainage-tube was taken out he walked out but was no better. His case had been pronounced one of prostatitis. An indurated mass extended up one side in the neighborhood of the vesicles. He placed him on his belly and did a Kraske operation, separating the rectum and exposing the prostate, which he found to be perfectly normal. He slit the mass of induration and let the prostate alone. When the patient left the hospital, the prostate was perfectly normal. Gonorrheal inflammation, as a rule, enters the vesicles by way of the ejaculatory ducts and does not involve the follicles of the prostate. He did not think that prostatitis causes enlargement enough to be noticed by rectal exploration. They do, though, cause a condition that can be felt by a long tube.

DR. CHETWOOD believed that the condition in the prostate predominated over that in the seminal vesicles, and that massage applied to the prostate was more effective than vesicular massage.

He recalled a case that came to him a few months ago. The symptoms directed attention to this region. The seminal vesicles were found to be the size of a hen's egg. In stripping the vesicles a large amount of material—about one ounce—came out, which looked like boiled starch. Every time the man reported the vesicles were redistended. He used a cold douche in the rectum and discovered that the emptying of the vesicles was accomplished more satisfactorily in this way than by the finger.

DR. LAPOWSKI thanked the reader of the paper for calling attention to one point in regard to the presence of gonococci in the prostate and seminal vesicles. This may induce some physicians who claim they could cure gonorrhea in from twelve days to six weeks, to be more guarded in their assertions. He asked Dr. Swinburne if he found under the microscope the inspissated masses of gelatinous material, which arranges itself either in globes or casts, as he is of the opinion that this was very important in making a diagnosis. The speaker drew attention to another point, which was constant painful erection, amounting to priapism, occurring when the

vesicles are affected. Dr. Swinburne had said the spermatozoa were dead; the speaker called attention to the fact that they were always dead when the material in which they laid was too much agglutinated. If he had added some water life would have been noted in one minute.

In regard to the question whether seminal vesiculitis is a post-gonorrheal or gonorrheal affection, he would rather look upon the disease as due to gonococci, and not to toxins, as there are reported cases where gonococci were found in the discharge from the vesicles. There is not one unquestioned case reported which was due to masturbation or traumatism so far as he knew; tuberculosis and gonorrhea are the only causes. Dr. Fuller had said that he was able to separate the prostate entirely from the vesicles; the speaker thought it a remarkable case, in view of the fact that even in animals, experimentators endeavoring to cut out the prostate, always found that some portion of the seminal vesicles was included.

A Case of Epididymitis.—Presented by DR. GUITERAS.

The case presented was more one of disease of the seminal vesicles than of the epididymis and so, he thought, could be considered under the discussion of Dr. Swinburne's paper. The man had, on the left side, a little bubonocoele; there was a question whether it was an abscess or an incarcerated hernia. Before operating, he examined him and found the epididymis on both sides enlarged, inflamed, and hardened. The right seminal vesicle was enlarged; the left showed a perivesicular inflammation. This area was about the size of a hen's egg. The prostate was enlarged and over the middle and a little to the left side of it there was found a mass that was like a rooster's comb. When he operated upon the swelling in the groin, he thought the abscess to be in the inguinal canal, and that it was tubercular. He examined for the tubercle bacilli but found none. The inguinal abscess healed. This mass about the seminal vesicles gradually became smaller. An abscess developed which left a hole in the side of the prostate so large that the end of the finger could be introduced. The method used in the treatment was that of injecting hot water, night and morning, by means of the rectal tube. It was used for one month. The opening was then the size of a French pea and the mass about the vesicles had diminished one-half. There were no signs or symptoms of ulcer of the rectum. There was no pain, no diarrhea, no tenesmus. The patient was given tonics and creosote and this was kept up some time. Two weeks ago he again saw the case. The seminal vesicles were diminished in size, the right one being almost normal. The hole in the prostate had entirely closed, but the left side had atrophied. When the case had first been seen there was a difference between the two sides of the prostate, one side being smaller than the other. In regard to rectal douches it seemed to the speaker that when given at certain times benefit follows when massage is not so good. This applied to cases both of seminal vesiculitis and of prostatitis, but more especially in the former.

DR. CABOT said that during the past three years he had had more or less experience in this line of work at the Post-Graduate Hospital. He thought prostatitis was much more rare than vesiculitis. He had followed cases of this kind through courses of treatment, he had examined the discharges obtained by stripping under the microscope. The spermatozoa appeared under the microscope. He thought that in massaging the prostate one stripped the ejaculatory ducts at the same time and so the spermatozoa came out. He thought that there was a number of cases where the ejaculatory ducts were affected without involvement above which caused obstruction of the flow of semen.

THE CHAIRMAN said that in these séances it was necessary to look out for the prostate, but still more so for the individual as a whole. Anything

that tends to increase the circulation will do him good. This would follow whether you gave iron internally to better the condition of the blood or by the application of hot or cold water through the rectum and possibly, in comparatively few cases, by massaging the prostate or the seminal vesicles. His experience with massaging of the prostate and seminal vesicles had been satisfactory. He thought the majority of cases of prostatitis and seminal vesiculitis would do well under massage and would give no further trouble. In all cases of massage of the prostate some other treatment was employed, such as injections through the rectum, tonics, etc. In his own experience he found that the seminal vesicles were pretty rarely affected.

DR. SWINBURNE replied to Dr. Lapowski that he had looked for amyaceous bodies but had seen only pus mixed with spermatozoa. He had found one or two cases of pure gonorrheal seminal vesiculitis; most of these cases, however, were of mixed infection, many of them were secondary. In regard to the movements of the spermatozoa, the point interested him, because he had seen many cases in which the spermatozoa showed movement when they were examined. He did not know whether they were always dead or not.

He asked Dr. Lapowski if he intended to say that a drop of water added to the urine under the slide would demonstrate motility of the spermatozoa? He should remember that the urine in these cases served to prevent the agglutination.

DR. LAPOWSKI answered that he did; for the reason that they were agglutinated together and five or six drops of water would cause this agglutination to disappear.

[EDITOR'S NOTE.—Since this report this has been tested in fully fifty cases and in none of them did movement occur when no movement existed before.—G. K. S.]

Selections.

SYPHILIS AND CUTANEOUS DISEASES.

In Charge of Dr. Boleslaw Lapowski.

The Point of Entrance of the Infection in Leprosy.—Of the communications presented to the recent *Lepra Conference* in Berlin, the greatest interest attaches to those of Sticker, regarding the lesions of the nose, and to those of Jeanselme and Laurens, on leprosy of the upper air-passages. "These communications, based upon bacteriological studies, have excited a great deal of interest among leprologists. They must be regarded as among the most noteworthy and valuable contributions recently made to our knowledge of leprosy, as they tend to throw light upon an obscure chapter in the etiology of the disease. Notwithstanding the identification of Hansen's bacillus as the active pathogenic agent in the causation of leprosy, it must be confessed that our knowledge of the modes of infection and the channels through which the bacilli gain entrance to the system is by no means definite. Of the 153 cases studied bacteriologically by Sticker, evidences of leprosy changes in the nasal mucous membrane were found in all but thirteen. As these changes often preceded by several years the first cutaneous nodules or the first nervous symptoms, Sticker maintains that they constitute the initial lesion of leprosy. Jeanselme and Laurens found leprosy lesions of the nasal fossa, the mouth, throat, and larynx in sixty per cent. of the cases examined by them. As a result of their studies, they conclude that chronic coryza is often the first exterior manifestation of

leprosy, and that the nasal mucus of lepers is of great virulence and constitutes one of the most efficient sources of the propagation of leprosy. The results of these investigations were first presented before the Société médicale des hôpitaux de Paris, July 23, 1897." In a recent letter to the *New York Medical Journal*, from which the preceding quotation is taken, Dr. P. A. Morrow lays claim to priority in these observations, substantiating his assertion by this quotation from his *System* (vol. iii, p. 572) published in 1894: "Contrary to what is usually taught, I believe that the first manifestations of leprosy are, in the majority of cases, determined toward the mucous membranes of the pharynx and upper air-passages. According to my observation, alteration of the voice, betrayed by a slight husky or rough phonation, rhinitis with an abnormally free nasal secretion, sometimes epistaxis, and an increase in the salivary secretion are among the earlier signs of leprosy. At a more advanced stage, when there are leprous deposits in the mucous surface, with involvement of the cartilages and bones, the characteristic harsh, raucous voice, and the difficult, sniffing respiration, from obstruction of the nostrils, are almost invariably concomitants." Again, on page 595, he says: "In the vast majority of cases I believe that the vehicles of the virus through which contagion is affected are the secretions of the mouth and the nose, and that the port of entrance is the mucous membrane of the respiratory and intestinal tract, with secondary infection through the blood or lymphatic system." In treating of prophylaxis, this passage occurs: "In view of the fact that contamination probably takes place from the buccal or nasal secretions, these should be disinfected or destroyed with the same scrupulous care as would be indicated in a case of tuberculosis." The case seems amply proven.

Late Syphilis. W. STERLING (*Arch. f. Derm. u. Syph.*, vol. xli, p. 373).

The enormous percentage of tertiary syphilis (45 per cent.) among the 1800 patients treated in Dr. Elsenberg's clinic is due to the special conditions and surroundings under which those patients have to exist. Abject poverty, coupled with irrational threatment before they reach the hospital, are the main causes of such an enormous percentage of late syphilis. Late syphilis occurred in 51.5 per cent. upon the skin and mucous membrane; in 39.4 per cent. the bones were affected; in 3 per cent. the testicles were involved, while only in 3.2 per cent. the central nervous system was afflicted, and the muscles were attacked in 2.9 per cent. only. The author gives two very interesting cases of gummata of the muscles.

1. **The Gastrophilus-larva upon the Skin.** C. V. SAMSON-HIMMELSTJERNA (*Archiv. f. Derm. u. Syph.*, vol. xli, f. 3).
2. **A Case of Dermatomyiasis Linearis Migrans Oestrosa.** H. J. KOUMBERG (*Vratch.*, p. 36, 1898).

Samson describes the penetration of the gastrophilus-larvæ into the human skin. His observations he collected in the Eastern provinces of Russia. The size of the larva is between one-half to one and one-half millimeters. It is very active, moving from one to fifteen centimeters in twenty-four hours. The manner of human infection is as yet unknown, although Sokoloff believes that the eggs attach themselves primarily to the full-grown or downy hairs, where they develop into larvæ. The uncovered parts, of the human skin are usually attacked, especially in the hot summer months, the patient feeling a burning and itching sensation corresponding to the movements of the insect. It usually penetrates the epidermis and travels along a line, which is slightly raised and irregular. It may traverse even the mucous

membrane, while one end of the line alongside of which the parasite is moving is in an active stage of irritation, the place of entrance of the parasite may present a normal appearance. The larva is not always easily discovered; it is sometimes lodged one-half centimeter away in the still unchanged skin. With the removal of the larva the itching and burning sensation ceases immediately.

Koumberg (2) gives the history of a similar case, with a description of the extracted parasite.

Lymphangioma Circumscriptum Seu Cystoides Cutis. By MAX FREUDWEILER (*Arch. f. Derm. u. Syph.*, vol. xli, p. 323).

Having had for a long period under observation a case of the disease and being able to note its condition every eight to fourteen days, the author removed different portions for examination and arrived at the following conclusions: The lymphangioma cystoides is a chronic, non-inflammatory new growth, which is developed from the lymphatic apparatus of the cutis, and appears below the epidermis in the form of large, clear, conglomerated, or confluent cysts. The cysts may communicate with the lymph-spaces though the connective channel may be obliterated. The epidermis is never actively involved in the process. The lymphangioma circumscriptum may be complicated with telangiectasis of the blood-vessels. In case the dividing wall between the cyst and blood-vessel is ruptured, the contents of the cyst are colored by the sanguineous influx.

The Action of Calomel Injections upon Lupus and Non-Syphilitic Affections. ASSELBERGS (*Annal d. Derm. et de Syph.*, p. 10, 1898).

Fourteen patients suffering from different forms of lupus vulgaris were subjected to calomel injections, administered in the buttocks every ten days. The results were very gratifying, varying from a simple reduction of the process to a complete disappearance of all lupoid elements. Especially the forms of tuberculo-ulcerative processes of lupus with subcutaneous infiltrations were improved by the injections. The pure tubercular form is more resisting. Lupus erythematosus and non-ulcerative tuberculosis lupus did not yield good results from this method of treatment. The author also used the calomel injections in two cases of epithelioma with good results, the epitheliomata disappeared after four injections. Cancer and elephantiasis were improved. According to the author's opinion the action of calomel is chiefly exercised upon the lymphatic infiltration and exudation.

1. **Human Botryomycosis. The Identity of the Nature of Papillomatous Tumors in Men, with Botryomycosis or Fungus of Castration (Champignon de Castration) in Horses.** By A. PONCET and L. DOR (*Lyon Médical*, vol. lxxxvi, No. 43, p. 213).
2. **Human Botryomycosis.** By A. PONCET and L. DOR (*Lyon Méd.*, vol. lxxxvi, No. 5, p. 145).

Basing themselves upon five cases, the authors came to the conclusion that the disease known in horses under the name of castration fungus (champignon de castration) is also met in human beings. In one case the writers succeeded in cultivating and inoculating with success the specific microbe of the disease obtained from a patient upon an ass. The microbe resembles the staphylococcus. The tumor in four cases out of five was situated upon the fingers and hands. It presented a solitary, pediculated, indolent growth, with slight tendency to bleeding. Microscopically, it ap-

peared as a mass of granulation tissue, with fibrous tissue scattered here and there, and in the central portion a number of embryonic blood-vessels. Removal by surgical means gave the best results.

Report of Five Cases of Erythematous Hysterical Dermatoneuroses. By ARTHUR VAN HARLINGEN (*Intern. Med. Mag.*, vol. vi, No. 11, pp. 695-702).

The author gives histories of five cases of skin manifestations met with in hysterical patients and expresses his opinion that they are dermatoneuroses and not factitious affections of the skin. In each case a feeling of burning or tingling, followed by an erythematous flush, ushered in the eruption. A slight, serous effusion follows, sometimes merely loosening the cuticle, at other times giving rise to a bulla. The lesions run a rapid course, drying up and leaving a brown, pigmented spot. He proposes the name of "dermatoneurosis erythematosum hystericus" for this class of affections.

Syphilitic Strictures of the Rectum. By E. LARLACE (*New Orleans Med. and Surg. Journ.*, vol. 1, No. 10, 1898).

The author uses dilatation as an operative measure to remove the stricture. He always prefers this tearing of the pathologic tissue by the bougie in the process of dilatation to a cutting operation, which would necessitate a fresh wound in a patient, whose system is under the influence of a specific virus. Combined with specific treatment this method of procedure gave satisfactory results in eight cases of stricture of the bowel.

A Case of Ainhum. By JAMES B. HERRICK (*Philadelphia Med. Journ.* February 5, 1898).

In a negro, who had been in Illinois over thirty years, the little toe of the left foot was enlarged and globular, looking like a marble or a small, round potato. It was attached to the body of the foot by a very thin pedicle, that was situated just outside of the center of the toe and seemed to consist of skin and fibrous tissue only. The nail was present, but was small, furrowed, and dry. The other toes showed nothing abnormal, though the nails on some were dry, brittle, and furrowed. No change whatever in the motor or sensory functions, or in the reflexes, could be made out. Pain, tactile, heat, and pressure senses were normal except in the affected toe. There was neither clinical nor microscopical evidence of leprosy.

A Case of Pemphigus Neonatorum, Associated with a General Infection by the Staphylococcus Pyogenes. L. EMMET HOLT (*N. Y. Med. Jour.*, February 5, 1898).

The infant nine days old was covered with many bullæ over its shoulders and lower part of the body. No syphilitic history. The bullæ were from a quarter of an inch to an inch in diameter, with turbid contents; others were ruptured, showing a deep red base formed by the cutis vera, and still others showed superficial ulceration, discharging pus. Purulent ophthalmia. The examination of chest and abdomen negative. A bacteriological examination of the contents of the bullæ revealed pure cultures of staphylococcus pyogenes aureus. The pus from the eye showed the presence of the same staphylococcus. No gonococci. An autopsy and bacteriological examination thirty-one hours after death showed the involvement of the lungs and liver, where the same staphylococcus was found combined

in the first instance with the bacterium lactis aerogenes, in the second with the streptococcus longus. The staphylococcus was injected into a mouse with positive results and the same organism was recovered from the blood of the heart of the mouse.

The author expresses an opinion that many cases formerly regarded as syphilitic will be found to belong to this category.

GENITO-URINARY DISEASES.

Pseudomembranous Seminal Vesiculitis Accompanied by the Colon Bacillus; (Followed by Epididymitis and Vaginalitis).

DR. NOGUES (*Ann. d. mal. d. org. génito-urin.*, No. 6, 1897; abstract in *Centralblatt f. d. Krank. d. Harn-und Sexual-Org.*, p. 90, 1898).

The patient had had two attacks of gonorrhea, two and five years before; apparent complete cure. When seen an epididymitis had occurred without known cause. At the same time there was a collection of fluid in the tunica vaginalis and the spermatic cord was thickened. The seminal vesicle of the same side was thickened at the neck. Recovery in two weeks. The first urine contained numerous thick threads, examination of which showed them to contain numerous colon bacilli.

The patient was then carefully examined as to his seminal vesicles, first urinating in two glasses, then holding the remainder until after massage of the vesicles. The first glass contained fäden as above, the second was clear, the third showed a large number of thick shreds which sank quickly. Examination of these latter also showed colon bacilli. Gonococci were not found; they may, however, have prepared the ground for the secondary infection, as the patient had had a previous gonorrhea. The question as to the source of infection is not clear. The bladder and kidneys were normal. No instrumentation had been made upon the patient. The passage of the bacilli through the rectal wall is supposable.

[It seems strange that these cases have received so little attention; they are not so rare that enough cannot be found for a more complete study, and it is to be hoped that in the near future more light will be thrown upon them. Epididymitis occurring long after the healing of a gonorrhea is not uncommon, but the seminal vesicles are very seldom examined at such times; if they are they will almost always be found to be involved. It would also seem to be important to make a more thorough bacteriological examination of these cases. In the above reported case cultures for the gonococcus both in the threads from the urethra and in the material from the seminal vesicles should have been made. The probability is, however, that they were not present in this case. Those cases of seminal vesiculitis containing the colon bacillus seem to suffer from constipation, and this may account for the possibility of the passage of these germs through the rectal walls. It is also possible that some of these cases of cystitis due to the colon bacillus are dependent upon an infection derived from the seminal vesicles. G. K. S.]

Ambulatory Treatment of Prostatic Enlargement by the Catheter a Demeure. DR. BAZY (*La Presse méd.*, 47; *Centralblatt f. d. Krank. d. Harn-und Sexual-Org.*, p. 95, 1898).

Several prostatists, under the care of Bazy, went about with a catheter *a demeure* for several months, with the result that there was a reestablishment of the power of spontaneous urination and atrophy of the prostate.

The catheter was so fixed (cf. Escat, *Ann. d. mal. d. org. g.-u.*, vi, 1897) that the patients could go about and attend to business.

The first patient wore the catheter a month and at the end of this time could again be catheterized. A second, seventy-seven years old, wore the catheter for eighteen months. A change of catheters could only be made by means of the mandrin; at the end of this time the prostate was small and soft, and catheterization was no longer necessary. The third had for three years suffered from difficulty of urination, for eight days had suffered from complete retention; after several months with the catheter *à demeure* could hold the urine five and six hours.

Two cases treated by this method died of their infection. Autopsy showed complete atrophy of the prostate.

The Anatomical Alterations in the Organs of Generation after Sexual Operations for Prostatic Hypertrophy. S. FLÖDERUS
(*Nordiskt Med. Arkiv.*, No. 5, 1897).

The author has collected in the literature 32 cases of operation on the testes or vasa deferentia for prostatic hypertrophy in which the prostate was examined after death. In 16 of these cases the examination was macroscopic only; in the other 16 cases microscopic examinations were also made. With these latter the author adds the history and also details of 4 cases operated upon by Professor Lennander at the surgical clinic of Upsala. In 2 of these latter cases double orchidectomy was performed; these two patients only survived the operation eight and sixteen days respectively. Upon one patient, seventy years old, with suppuration of one testis, this organ was removed and a vasectomy of the opposite side performed. He survived four and a half months. In the fourth case, sixty-five years old, double vasectomy with extirpation of the nerves accompanying the vas was done. He died a little more than a year after the operation. After death the testes with their adnexa were examined. The causes of death in these four cases were bronchopneumonia with pyelonephritis, suppurative spermato-cystitis with parenchymatous nephritis, and in the last case acute edema (uremic?) of the lungs.

Thus, of the cases operated upon in which microscopic examinations were made, 1 in 13 double orchidectomy was performed; unilateral orchidectomy in 1; unilateral orchidectomy with vasectomy of the opposite side in 1; and bilateral vasectomy in 5. The author arrives at the conclusion that the diminution in the prostate is not due to any alteration in the organized tissue of the prostate which can be discovered, but that it must be regarded as due to the diminution in the circulating tissue, the blood, and lymph. According to him this diminution of the congestion receives its importance, in view of functional improvement, less from the decongestion of the substance of the prostate proper than from the depletion of the mucous and submucous portion of the prostatic urethra and of the neck of the bladder, and cites a number of clinical observations in support of his view. The pathological processes discovered by Griffiths, White, and Haynes, after orchidectomy and considered by them as consequent upon the operation, he regards as due mainly to a pre-existing prostatitis, and the opinion of these authors on this question has not been shared by more recent investigators.

According to the author it is not impossible that the sexual operations provoke alterations in the normal prostate, even in the organized tissues of these bodies, but he believes that they do not lead in prostates with senile hypertrophy to perceptible alterations in the solid elements of the tissues, at least, to an extent which gives them a practical importance as therapeutic factors. He points out that in hypertrophy of the prostate the specific elements of the organ, the glands and the muscular sheaths surrounding them,

are ordinarily surpassed in amount by the connective-tissue elements, of which it is difficult to hope for any diminution by the operation. The absence, however, of any alterations produced by the operation in the organized tissues does not, in his opinion, exclude the justification for the operation. The plates presented show the glandular tissue almost everywhere completely preserved. Here and there may be seen glandular tubes which have atrophied, which the author believes always to be due to a compression already existing before the operation, produced by the proliferating connective tissue, and no signs of alteration more acute can be seen. There may be found spots showing fatty degeneration of the epithelium and hyaline degeneration of the muscular portion. Nevertheless, we do not find any alterations which are not met with to an equal degree in cases which have not been operated upon.

In the case sixty-five years old, quoted above, dying one year after the operation, the testes presented an almost uniform reduction of the seminiferous tubules, with their lumens almost obliterated. At several points the heads of spermatozoa were seen but no typical spermatozoa. These are probably the result of the vasectomy. These alterations, according to him, are distinct from those found by Griffiths in senile atrophy.

The rete testis and the vas of the epididymis were anomalously distended by a secretion rich in spermatozoa, but in all other respects presented no alteration. That portion of the vasa deferentia between the testes and the site of ligature showed atrophy of the muscular elements and suppression of the folds in the mucosa and a slight narrowing of the lumen. At the site of the operation the vas was replaced by a cord of connective tissue. He could trace no change in the other portions of the vas, and just as little change in the seminal vesicles and the ejaculatory ducts.

Renal Hematuria without Known Lesions. M. L. HARRIS, M.D.
(*Phila. Med. Journ.*, p. 509, 1898).

Harris reports in detail the histories of two cases with this peculiar condition. The first case was a man fifty-one years old, without venereal or alcoholic history. There were absolutely no symptoms except blood in the urine, which had continued steadily for three months before the patient was seen, and the resulting anemia and loss of strength. Patient recovered under general tonics and forced feeding and has had no recurrence in two and a half years. The second case was a man fifty years old with a very similar history who had suffered from this condition off and on for three years. Physical examination absolutely negative. Cystoscopic examination showed that the blood came only from the left ureter. Medicinal treatment proving ineffectual, exploratory nephrotomy was performed. The kidney being found normal in consistence, and no calculus being found, the kidney was sutured and wound closed. The patient recovered and was perfectly well when last heard from, six months after operation. The author reviewed sixteen other reported cases with similar histories. The theories that have been advanced to explain the condition are unsatisfactory; he draws, however, the following conclusions:

1. There is a condition of renal hematuria not due to the usually accepted causes, namely: acute nephritis, calculi, tuberculosis, septic infection, malignant and non-malignant new formations, hemophilia, injuries, malaria, intoxications, etc.
2. There is probably in these cases a local lesion in the kidney which may be strongly influenced by the nervous system.
3. With our present knowledge we are unable to state what the pathologic changes are.

4. These cases have not been benefited by the usual hemostatic remedies.

5. After a reasonable trial of other methods of treatment, including tonics, cold baths, etc., if unsuccessful, simple nephrotomy should be performed.

6. Owing to the almost uniform success of simple nephrotomy, primary nephrectomy should never be performed.

Announcement.

AMERICAN ASSOCIATION OF GENITO-URINARY SURGEONS.

Program of the Twelfth Annual Meeting to be Held at Cranston's Hotel, West Point, N. Y., Tuesday and Wednesday, June 7 and 8, 1898.

OFFICERS FOR 1898.

President, J. William White, M.D., of Philadelphia; vice-president, James Bell, M.D., of Montreal; secretary, W. K. Otis, M.D., of New York; members of the council, Francis S. Watson, M.D., of Boston, and R. W. Taylor, M.D., of New York.

FIRST DAY—TUESDAY, JUNE 7TH.

BUSINESS MEETING AT 9 A.M.

1. Reading of Minutes.
2. Report of Council.
3. Report of Committees.
4. Election of Nominating Committee.
5. Appointment of Auditing Committee.
6. Proposals in Writing for Membership.
7. Miscellaneous Business.

MORNING SESSION AT 10 O'CLOCK.

1. "The Indications for Operation in Renal Tuberculosis, and Choice of Operative Method." By Dr. Roswell Park of Buffalo.
2. "The Other Kidney in Nephrectomy for Renal Tuberculosis." By Dr. J. P. Bryson of St. Louis.
3. "Reports of Cases of Renal Surgery, with Remarks upon the Choice of Operation and Operative Technic." By Dr. Francis S. Watson of Boston.
4. "Clinical Notes on Syphilis." By Dr. J. A. Fordyce of New York.
5. "Pathology of Chancre and Chancroid." By Dr. E. E. King of Toronto.

AFTERNOON SESSION AT 3 P.M.

1. "A Case of Recurrence of Stone in the Bladder." By Dr. Arthur T. Cabot of Boston.
2. "Report of a Case of Cystitis Due to Colon Bacillus, Complicated by Phosphatic Calculi." By Dr. G. K. Swinburne of New York.
3. "A Modification of the Technic of Perineal Section." By Dr. Orville Horwitz of Philadelphia.
4. "External Urethrotomy." By Dr. J. R. Hayden of New York.
5. "Oxaluria." By Dr. F. Tilden Brown of New York.
6. "Some Clinical Observations on the Use of Urotropin in Pyuria." By Dr. Geo. E. Brewer of New York.

SECOND DAY—WEDNESDAY, JUNE 8TH.

BUSINESS MEETING AT 9 A.M.

1. Report of the Treasurer and the Auditing Committee.
2. Report of Nominating Committee and Election of Officers.
3. Election of Members.
4. Selection of Time and Place for Next Meeting.
5. Miscellaneous Business.

MORNING SESSION AT 10 O'CLOCK.

1. "A Consideration of the Urinary Distance as a Diagnostic Factor of Prostatic Hypertrophy." By Dr. E. L. Keyes of New York.
 2. "A Study into the Nature of Enlargement of the Prostate." By Dr. Samuel Alexander of New York.
 3. "Personal Experience in the Operative Treatment of Prostatic Obstruction." By Dr. Arthur Cabot of Boston.
 4. "Some Observations Concerning the Prostate." By Dr. R. H. Greene of New York.
 5. "Recovery, with Restoration of the Vesical Function Following a Total Extirpation of the Prostate and Resection of the Bladder for Malignant Disease." By Dr. Eugene Fuller of New York.
 6. "Treatment of Acute Inflammation of the Prostate." By Dr. James P. Tuttle of New York.
 7. "Catarrhal Prostatitis." By Dr. H. M. Christian of Philadelphia.
- Adjournment at 1.30 P.M.

AFTERNOON SESSION AT 3 P.M.

1. "Urethritis and Its Treatment." By Dr. J. Blake White of New York.
 2. "Personal Experience in the Treatment of Urethritis." By Dr. Edward Martin of Philadelphia.
 3. "Are Complete Castrates Capable of Procreation?" By Dr. Frederick R. Sturgis of New York.
 4. "Notes. An Addition to the Technic of Castration for Tubercular Disease." By Dr. E. E. King of Toronto.
 5. "Some Remarks on Tubercular Disease of the Testicle." By Dr. Ramon Guiteras of New York.
 6. "Report of a Case of Sclerotic Narrowing of the Meatus." By Dr. George K. Swinburne of New York.
 7. "Oxaluria." By Dr. F. Tilden Brown of New York.
 8. "A General Consideration of the Contributing Factors in Hematuria." By Dr. W. K. Otis of New York.
- Retirement of old and induction of newly elected officers.
Adjournment.

Guaiacol in Gonorrheal Epididymitis.—GOLDBERG (*Deut. Med. Wochenschrift*, No. 32, 1897) paints the scrotum with pure guaiacol or equal parts of guaiacol-glycerin once or twice during the first three days. Afterward, he uses an ointment (about twelve-per-cent. strength) daily, not more than $\frac{1}{4}$ dram being applied in twenty-four hours. This is used for two weeks, and, in case the scrotal skin becomes irritated, a bland salve takes its place. Symptoms of poisoning may appear, such as anorexia, dizziness, perspiration, green urine, and must be watched for. The treatment gave good results.

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Original Communications.

TROPHIC DERMATOSES FOLLOWING FRACTURES.¹

By DR. JOSEPH ZEISLER,

Professor of Skin and Venereal Diseases, Northwestern University Medical
Schools, Chicago.

IT is surely anything but usual for a physician whose work is confined to dermatological matters, to be able to observe closely phenomena incidental upon surgical affections. My interest in the particular phase suggested by the above title partakes unfortunately of a rather personal character. That there might be cutaneous disturbances following fracture, especially of bones in the extremities, would *a priori* seem quite natural. Not as if the fracture of the bone was directly responsible for it; but the concomitant pressure or even laceration of some nerve trunks or fibers, the resulting changed innervation in the corresponding area of the skin, furthermore, the prolonged inactivity with malnutrition and enormous atrophy of the whole extremity will easily explain trophic disturbances in the skin. It must be confessed that, compared with the main trouble, these are of a rather insignificant nature, but it is strange that even special works on fractures contain not the slightest allusion to the subject and my rather diligent search of the literature proved a thankless task. Only in Malgaigne's great work, "*Traité des Fractures*," 1847, have I found less than a page which bears upon it. It refers to the growth of the nails after fracture. On page 109 he writes: "Until recently no attention has been paid to the state of the nails, when Dr. Guenther believed to have found in

¹ Read before the Dermatological Association of Princeton, N. J., May 31, '98.

certain phenomena of their growth a sure and very precious sign indicating the consolidation of the bone. It was by a mere chance that he had made this discovery. A young man suffering from an oblique and comminuted fracture of the right leg had observed that the nails of the right foot did not grow as well as those of the left one. He told this to his doctor who from then on examined the nails very carefully. However, on the fiftieth day they observed that the nail of the smallest toe commenced to grow, then somewhat later followed the three next ones, and finally in the course of a few weeks the nail of the large toe. With the commencement of this growth the patient had the sensation of the solidity of the bone, and, indeed, the consolidation was perfect. Since 1832 the Saxon doctor claims to have noticed a large number of similar cases and he concludes that in fractures of the lower limbs the condition of the nail-growth constitutes an important symptom which disappears only after completed union."

Malgaigne tried to verify this in fractures of the humerus and radius but did not succeed. Nor did he see it in any other cases and he therefore concludes: "*Et le docteur Guenther a certainement été la dupe de son imagination ou de son malade.*"

I do not believe that the good Saxon doctor has really been the dupe of his imagination or of his patient, if I may be allowed to judge from my own careful observation. On the 6th of August, 1896, I fractured my right thigh. At that time my toe-nails were cut quite closely with the exception of those on the large toes. Within the next two weeks I read a good deal on fractures, particularly Astley Cooper's and Malgaigne's works. Having found the above quotation I began to pay attention to the growth of my toe-nails and had my nurses assist me in this. The nails on the left foot grew slowly so that after four weeks they could be trimmed somewhat. Those on the fractured side showed even after six weeks not the slightest increase in their size, and hardly even a free border which would allow their being cut. At that time the dressing was removed and I began to make the first attempts at walking on crutches. Even then the nails grew very slowly on the injured side and it was probably ten weeks after the accident that a free border could be felt. In the measure as the nails then began to develop I noticed near the base a deep ridge which slowly moved forward so that during the next six to eight weeks the nails, particularly and most noticeably the one of the large toe showed a distinct division into two portions, a distal one which was thin and clearly atrophic and a proximal strong and thick one. This line of demarcation

seems to me to indicate that from the moment of the fracture the nails had evidently ceased to grow, and inasmuch as my nails had never before or since exhibited a similar abnormality I take my observation to be a confirmation of Guenther's experience. But I cannot quite agree with his explanation as to the significance of the phenomenon, for in my case the beginning of the nail growth did not mean a perfected consolidation, else my nails would never again have grown, as even to-day there is no bony union in my thigh. To my mind the arrest of the growth of the nails is simply the result of the malnutrition and general atrophy. As long as the limb is constricted by clumsy dressings and is constantly in a horizontal position the nails are liable to suffer in their nutrition. With the removal of the bandages, the improved blood-supply through massage and gentle motions, particularly the dependent position of the limb in sitting up and walking, the nails will resumé their growth. To clear this question further I made some personal inquiries from a few of my surgeon friends. Some had absolutely no experience in the matter, others professed that they had observed quite a free growth of the toe-nails in such cases. This is quite probable. All surgeons do not treat fractures alike and all broken limbs do not atrophy to the same extent. At any rate my own investigation was made perfectly unbiased and it will be granted that one positive observation goes for more than any number of negative ones.

The atrophy of the skin which naturally accompanies the general atrophy of the extremity can be noticed by various signs. When the bandages are removed there will be found an enormous dehiscence of the hairs and a profuse desquamation of the horny layer, I also noticed at that time a great disposition to the formation of small ecthymatous lesions. For several months the slightest irritation of the skin, particularly massage, would produce that trouble which disappeared only slowly.

When I gradually began to use my limb more freely I noticed another distinctly trophic disturbance. About April, 1897, with the advent of pleasanter weather, there appeared on the sole of my right foot small, isolated, deep-seated, firm vesicles of pin-head size, or somewhat larger. At first they were few in numbers, itched intensely and upon being opened would dry up and heal in the course of a few days. They were not grouped and were located chiefly in the middle of the sole. This condition persisted for nearly three months, when during July and August, at a time when I moved about quite freely, the trouble became rather intense; every day several of those vesicles would appear, often now in clus-

ters, they burst spontaneously or would be scratched open on account of the violent itching, until at the height of the process the central part of the sole presented an appearance as in *eczema rubrum*. Under persistent treatment with zinc plaster, dusting powders, and chiefly a radical change in the footwear and diminished walking, the annoying trouble disappeared very gradually. During the past winter I was quite comfortable, but the spring of 1898 brought a slight relapse. I have every reason to connect this condition with the preceding fracture and the resulting impairment of the nutrition of the whole limb, which even now is considerably reduced in volume. I should be embarrassed how to name it. It was neither an *eczema*, nor *herpes*, nor any parasitic affection. *Dermatitis vesiculosa trophoneurotica* would probably express it?

Quite recently I saw an eruption on a baby's forearm which had developed within a few weeks after fracture of the radius. Its general appearance was that of a *papulovesicular eczema*, but it was confined to a limited area, a longitudinal narrow band along the radial side of the forearm. This limitation seemed to preclude the production by a tight dressing and pointed distinctly toward a trophic influence.

I offer these observations as a meagre contribution to the yet somewhat unexplored field of trophoneuroses of the skin.

NOTE.—Among the first patients whom I saw upon my return from the meeting where the foregoing was read, was a gentleman, thirty-two years old, with a chronic *eczema* on the right ankle. Examination of the sole of the foot showed a few scattered vesicles in various stages of development or involution. So struck was I by the resemblance to my own case described above, that I hazarded the question, whether he had ever had a fracture of that leg. He looked up in surprise and promptly showed me a large scar in the middle of the lower limb, the result of a fracture of the tibia some six years ago. Since that time he has observed the regular appearance of little blisters on his sole and the gradual development of the *eczema* now present.

I am sure that many similar cases could be discovered if due attention is paid to this matter.

THE PRACTICAL USE OF THE ENDOSCOPE.¹

By HERMANN G. KLOTZ, M.D.,
New York.

IN bringing before you the subject of the practical use of the endoscope, I have to make an apology because I do not expect to proffer much that will be new to most of the gentlemen present. But I hope that my paper will promote a discussion, which through a free interchange of opinions and of experiences may prove of interest and advantage to all. I may be allowed to state in advance that I have no new instrument to introduce, neither domestic nor of foreign importation.

Most of the papers on the endoscope begin with bewailing the insufficient appreciation of the endoscope by the medical profession; this I will omit, but I shall rather accept as an acknowledged fact, that to all appearances the urethroscope is not so widely employed in the diagnosis and treatment of chronic diseases of the urethra as its importance would warrant, although over thirty years have elapsed since Désormeaux laid his endoscope before the Academy of Medicine of France and published the observations made with the instrument. Like other similar inventions the ocular examination of the urethra met with great, sometimes too great enthusiasm on the one side, on the other with indifference and with opposition. It is of less interest to follow up the sources of the enthusiasm than those of the adverse reception. In some instances the disinclination to adopt the new method may have been one of sheer habit and of a perhaps not unnatural reluctance to relinquish the old methods which had given satisfactory results in many cases. While endoscopy is simple enough and comparatively easy to learn, it certainly requires some time and practice before you will be able to see readily and discern what comes before your eye. This, I feel quite sure, happens with the most perfect instruments just as well as it will occur with the laryngoscope, the ophthalmoscope, and other scopes. You first must become accustomed to view a small field of observation in a narrow cavity and at a certain distance from the eye, before you can fully comprehend the pictures offering themselves. With some of the early instruments this was particularly true, owing partly to the small caliber of the tubes employed, partly to the material of which they were made. Besides, the great expectations which had been placed in the instrument were not always fulfilled, because no extraordinary or rare conditions were found, as polypi, warts, ulcers, cancers, etc., but only

¹ Read before the Section on Gen.-Urin. Surgery, N. Y. Acad. of Med.

trivial, very common, and apparently not important lesions which did not seem worth the trouble of endoscopic examination. With such an experience undoubtedly many after a short trial have given up this method again, the more so as it involves a larger amount of time and work than the busy practitioner often feels justified to bestow on a single case of "common gleet." Others again were deeply imbued with the theory that a chronic discharge from the urethra was invariably due to the presence of a stricture. Strictures, they argued, could under no circumstances be treated with advantage by such local measures as the endoscope would afford, therefore, it was entirely useless to employ it. Operation was considered the only remedy, and some went so far as to cut somewhere in the urethra even when they were not able to locate a stricture if they could not stop a chronic discharge.

Another obstacle to the general adoption of endoscopic methods has been the discovery of the gonococcus by Neisser in 1879, which closely followed the publication of Grünfeld of Vienna, and his successful endeavors to introduce the endoscope into practice. With the gonococcus acknowledged as the cause of gonorrhea, it was but natural that all therapeutic efforts should become principally directed toward the extermination of the etiological factor and that the treatment should mainly become an antiparasitic one. You are all aware that more recently, particularly from the gynecologists, a reaction has set in against this tendency, and it can be stated that at the present time there are at least in Germany two camps in opposition, the one holding that all treatment be directed against the coccus, the other claiming that the infected organs themselves mainly deserve our attention. Neisser, the principal representative of the anti-gonococcus régime, and his school have never been very friendly toward the endoscope because they doubt its efficiency for the elimination and destruction of the gonococcus, of which you can get no evidence with the endoscope.

Besides these unfavorable circumstances I believe that the progress of endoscopy has been somewhat retarded by the frequent invention and recommendation of new instruments, and not less by the unusual zeal and persistency with which the advocates of one particular instrument have tried to push the same to the front, and to claim that it alone affords the means for scientific endoscopy, ignoring or belittling the work done with other instruments. It is hardly necessary to say that I mean the electro-endoscope of Oberländer and Kollman. In his first publications, Oberländer actually went so far as to assert that certain conditions of the interior of the urethra de-

scribed by him could be seen only with his own instrument. The principle of all endoscopes is simply to expand the urethra sufficiently to expose a more or less extensive portion of its interior surface to light in such a manner that it appears as distinctly before the inspecting eye as the mucous membrane of the pharynx and mouth appear if we look into the throat. It is evident that if certain pathological conditions really exist, they may become visible to every one who can fulfil the above requirements, no matter which instrument or light he uses, provided his power of vision is not impaired and he has sufficient intelligence and experience to interpret the pictures seen. This was substantially the answer given to Oberländer's claims by Finger, Grünfeld, and myself during a discussion on gonorrhea at the first meeting of the German Dermatological Society in Prague in 1889, and this same answer stands to-day against all similar claims. And, indeed, the conditions described by Oberländer have been distinctly observed and reported with other instruments before and since his publications. I only wish to state, that with sunlight, reflected from a plain mirror, the most minute detail of the mucous membrane, the finest blood-vessels, the slightest differences in the level of the surface can be seen, and the mucous membrane becomes translucent enough to reveal the underlying conditions. That much credit is due to Oberländer for his painstaking and methodical examinations, for his efforts to connect certain macroscopical appearances with certain histological conditions to which I shall refer later on, no one will dispute.

In conformity with what I have said before, although I have not myself tried all or even many of the instruments constructed for urethroscopy, I believe that they are all serviceable and well adapted for the purpose, and that you may obtain satisfactory results with every one of them after some practice. From this standpoint I shall now briefly review the different methods and instruments in regard to their peculiarities and to their merit.

According to the mode of application of the light the urethroscopes can be divided into two classes: in one, the light is carried directly into the interior of the urethra; in the other, the light is thrown into the tube from the outside, either directly or by reflection, the light being either attached to the tube itself or detached from the same.

The only representative of the first class is the instrument of Nitze, with its modifications by Oberländer and Kollman; it will be but just to consider only the most improved instrument of Kollman, which, among other changes, has happily discarded the funnel

at the ocular end and thereby removed one of the objectionable points in the older instruments.

The light is furnished by a platinum wire made incandescent by the electric current with which it is connected by conducting wires. The wire is introduced to near the visceral end of the tube and throws a strong light upon the exposed portion of the mucous membrane in its close proximity. I cannot find any reference to the lighting power of this wire in comparison with that of mignon lamps of known candle-power, but it undoubtedly affords a very brilliant illumination, and, as it is claimed, renders much of the urethra translucent, so "as to enable an experienced eye to discover certain conditions of the deeper layers." The opportunity for the observation of an illuminated spot depends not only on the intensity of the light employed, but also on its distance from the eye of the observer—in our case, on the length of the tube. If the eye is able to approach nearer the object with reflected light, although of somewhat inferior intensity, it may obtain more favorable conditions for inspection than at a greater distance with the stronger direct light. I have not found any notice about the length of the tubes of this endoscope, but they are all of one length, and apparently longer than those employed with other apparatus. To the tube proper must be added the length of the superstructure which bears the wires and water-conduits, so that the real advantage of the more powerful light is, to a certain extent, lost by the increase in distance. Accepting, without question, the assurance of Wossidlo that the water circulating around the wire removes absolutely all danger or unpleasant results of the heat, there still remains an apparatus which not only, at first glance, but after long contemplation, seems cumbersome and complicated, requiring attention to the battery and circulation of the water, and handicapped at the ocular end by the weight and fixation of the conducting wires, etc. The latter I consider a great obstacle to the subtle and minute movements of the tube necessary for a complete examination of the urethra, particularly when the anterior portions are reached, and the larger portion of the tube has been withdrawn from the urethra. This disadvantage of length and weight of the ocular attachment of the tube becomes even more aggravating during the examination of the membranous and prostatic portions, when the ocular end has to be lowered to, and quite often considerably below, the horizontal position; the longer the distance from the visceral end, the more it is necessary to lower the observing eye and to bend the head to follow this movement. Perhaps this accounts for the remarks of Wossidlo, that endoscopy of the posterior

urethra is very rarely practised, partly because it sometimes is painful and partly because it causes some hemorrhage. These not only interfere with the examination but are out of proportion to the benefits which could result from such examination. I understand that with the employment of tubes of larger caliber it is possible now to introduce instruments for cleaning, etc., without first removing the staff bearing the platinum wire. This was necessary in the older instruments, and certainly a great drawback. Another disadvantage, perhaps, of minor weight, is the preclusion of the use of the incandescent wire in the presence of any fluid like blood, etc., on the field of observation, owing to the development of steam. These considerations which, besides some personal observation made in Oberländer's office, are principally based on the article by Wossidlo, in the *Medical Record*, September 7, 1895, sufficiently demonstrate that Kollmann's instrument is by no means free from objectionable features and is certainly not as perfect as has been claimed.

The characteristic feature of all the other instruments is that the source of the light is located outside the urethra, either attached to the tube or detached from it. They do not differ much in regard to the endoscopic tubes; in this country, at least, I believe the simple instrument devised and published by me in 1886 is in almost general use. A few words must be said in regard to the length and width of these tubes. Wossidlo attributes the introduction of wider calibers to Oberländer and Kollman, but as early as 1886 I used and advised the use of larger sizes up to 27, and in 1893, in Morrow's system, pages 25 to 32, pointed out as quite obvious the advantages of the widest and shortest possible tube. The disk which was invented by Steurer, by pushing back the penis, allows the employment of tubes much shorter than the penis itself, except for the prostatic urethra, for the examination of which, at least in many instances, longer tubes are required.

It was a wide step, although not an immediate one, from Désormeaux's complicated instrument to the adoption of the simple reflecting mirror of the laryngologist and the simple urethral tube, which, first inaugurated by Haken of Riga, in 1862, was followed up by Josef Grünfeld of Vienna, to whom great credit is due for the successful introduction of endoscopy into real practice. The separation of the tube from the source of light leaves the most important part of the work in the left hand of the explorer, which conducts the tube through the length of the urethra and enables the same to place it in all possible positions required by the examination, without being hampered by any superfluous weight. It allows the application of

tubes of different lengths and widths without any reference to the light, and leaves the right hand entirely free to make whatever applications or surgical manipulations may become necessary, from the simple cotton tampons twisted around wire, for removing fluids, cleaning the surface, and applying remedies to the surface, to the knife or the galvanocautery. It can readily be turned from the central to an eccentric or parietal position, besides leaving you entirely free in the selection of the light itself, be it a kerosene lamp, or a common gas or Welsbach light, the sun, or electric light. The usual reflecting mirror, with a focus of ten inches, which is most commonly employed and again recommended by Lydston of St. Louis, in the recently published text-book of Bangs and Hardaway, recommends itself as being inexpensive, as familiar to most practitioners, so that it is not difficult to acquire the practice necessary for learning how to throw the light into the proper direction through the narrow channel of the tube, by dexterous movements of the head, and how to change the focus by slight forward and backward motion so as to bring out differences in the level of the surface of the mucous membrane. Much, of course, will depend on the quality and intensity of the light itself, but as you are not limited in the selection of an illuminating apparatus by size, shape, etc., it will not be so difficult to provide for the strongest possible light power in every single case. I have used for almost twenty years a kerosene lamp, in which twelve solid wicks are arranged in a circle around a small carbon plate, which gives the flame a slight outward direction as in the so-called sun-burner; it gives an excellent equally brilliant light, requires but very little attention, is always ready, and can easily be moved. Such lamps can now be bought in this city for a moderate price, about three dollars, and be screwed to any convenient stand. One of the drawbacks of this method is the necessity of maintaining a certain position of the head toward the source of light, and, as a rule, of making your observation through the small aperture in the center of the mirror. It is obvious, therefore, that it would be an advantage if you could locate the light itself on the head-band. This problem has long been solved by Schütz of Frankfurt a. M. in his diaphotoscope, in which the electric lamp of peculiar shape, with reflector, etc., enclosed in a metallic case, sufficiently protected against heating, is placed directly in front of one eye. It has been highly recommended by Burkhard. Since last year I have seen and used an electric head-band light, probably well known to all of you, the inventor of which is unknown to me, although the similarity to W. K. Otis' light suggests him as the author. A small

electric lamp is enclosed in a cylinder, covered by a convex lens, which can be moved by some screw arrangement to increase or decrease the focus. This instrument places the light between the eyes, thus leaving them entirely uncovered and unobstructed; it dispenses with all reflection, but throws the light directly into the tube subject to directions given by the movements of the head. It develops but very little heat except during prolonged examination, and, therefore, appears to be about as ideal an instrument as can be imagined.

The introduction into popular use of the electric light has led to the construction of a number of instruments which returned to the plan of Désormeaux, by attaching the light to the tube itself; the pioneer was Leiter's electro-endoscope in 1887. It has received many modifications and improvements in this country by W. K. Otis, T. Brown, Alexander, and others, and seems to enjoy great popularity. The advantage of this instrument, provided you have a reliable battery, or better still, connection with the street-current, are, that as soon as the tube is introduced, the light attached and the obturator removed, illumination and the possibility of inspection are at once assured without introducing the wire or shifting your light so as to throw the rays in the proper direction into the tube; you have an excellent light and can introduce all kinds of instruments. They have, however, some disadvantages in common with the Oberländer instrument which have been mentioned before. The greater length of the instrument, tube including light apparatus, and the greater weight of the portion which remains outside of the urethra, and particularly the difficulties in lowering the ocular end for inspection of the membranous and prostatic urethra. Another drawback lies in the fixation of the light and the restriction of the focus to a certain distance, which imply the employment of tubes of one length only.

I can only mention by name several other instruments, with different shaped tubes, particularly the dilating endoscopes like those of T. Brown, and the various aero-urethroscopes, which I believe are useful and practical only for certain purposes.

With so large a number of instruments to select from, it does not seem difficult to decide upon one after your own choice. It has always seemed to me that *ceteris paribus* preference ought to be given to the most simple apparatus which, as a rule, will be the least expensive and the least liable to need repairs.

Approaching now, Mr Chairman, the question of the practical value of urethroscopy itself, we have first to consider *urethroscopy as the means of diagnosis*. It can hardly be doubted that the desire to

look into the urethra was mainly prompted by the feeling that the means of examination were not sufficiently exact to answer all the questions which occurred in cases of chronic urethritis, not only in regard to the nature of the pathological conditions and processes present, but also in regard to their location. Much has been written and contended that the sense of touch and the instruments supplying its wants in the shape of the bougie in its different forms, the sounds, the urethrometer, and other more or less perfect instruments, provided all the evidence required for deciding the nature and location of the lesions in the urethra. I do not mean to enter upon this dispute. I only assert that after probing and sounding, stretching and cutting, there remained a large number of cases in which the chronic discharge, however slight, remained undisturbed, and the fatal drop in the morning continued to mock all our endeavors to stop it. With a feeling of shame and of disgust we often had to give up the struggle, unless the patient himself spared us the humiliation by voluntarily withdrawing before the real crisis was reached. "If we could only look in," may often have been the silent wish of the surgeon. The desire must have been very strong to prompt a man like Désormeaux to study and experiment for years to solve the problem, which many able men before him had attacked in vain.

It is generally conceded that endoscopy, as a rule, is not applicable to conditions of acute inflammation; only exceptionally is it justifiable to employ the endoscope where there exists a strong suspicion that an ulcer, chancre, or some unusual process is present as the cause of a purulent discharge. Its proper field is the chronic gonorrhea, or, more generally speaking, chronic urethritis. Tarnowski and Finger have established the rule that no examination with the endoscope should be made until the patient had several times been examined with the sound, so that the mucous membrane was sufficiently accustomed to the introduction of instruments. Since we have in cocain a simple and valuable remedy to allay the irritability of the urethra, this consideration does not seem to be valid any longer. It is certainly advisable, however, to follow their advice more in order to ascertain the average width of the urethra, and the size of the largest possible endoscopic tube which may be introduced, although, nowadays, very few cases of chronic urethritis will come under your treatment which have not been previously treated with some instrument. It is important to use the largest possible caliber of tubes; since examination with instruments of a caliber say below 23 gives only very limited information, it often becomes necessary to widen the orifice by meatotomy. The examination with the endo-

scope reveals the seat and the nature, but sometimes the entire absence of pathological conditions. Primarily we can see directly the surface of the mucous membrane through the entire length of the urethral canal. We notice differences in color, in smoothness and firmness of the epithelial cover; we see the condition of the mucous glands, particularly of the lacunæ Morgagni; we also see directly the consistency of the mucous membrane, whether it possesses its normal elasticity or whether it is abnormally moist and succulent, or edematous; whether it is deprived of part, or of the entirety, of its epithelium. We can see whether the epithelium in the deeper portion is of the normal cylindrical or of the pavement variety. Indirectly we perceive the consistency of the submucous and of the deeper tissues by the configuration of the funnel and the so-called central figure, which depend upon the elasticity, resistancy, and thickness of the submucous tissues. The funnel has a certain depth, probably not exceeding the diameter of the tube, and regular shape, with fine radiated folds when the mucous membrane is naturally smooth and soft. With a succulent, moderately swollen mucous membrane, the funnel will be shorter and less wide, and the fine folds will disappear. If the conditions of edema and swelling assume a more pronounced degree, the funnel will disappear entirely, the mucous membrane may close the lumen of the tube like a curtain or may even bulge into the same leaving only a small central depression. If the mucous membrane is swollen but more resistant and rigid, it will not so quickly follow the receding movements of the tube, but will remain stretched and form a deeper more pointed funnel, with a smooth surface without any radiated folds. In the higher degrees of rigidity, the regular funnel shape gives way to an irregular, patulous channel, extending sometimes for one-half or three-fourths of an inch. Whenever the infiltration does not extend over the entire circumference of the urethra, but is limited to one side or to circumscribed patches, the funnel may be divided into several large folds, become oval, irregular, showing a central figure with three or four processus, etc.

Among the superficial changes of the mucous membrane, those of the color are the most conspicuous; the natural pale pink may assume all nuances from dark bluish- or brownish-red to the purest white, the changes being restricted to small patches or extending over a considerable portion of the urethra. Instead of the normal smoothness and luster, which gives to the mucous membrane the resemblance of dull, fine silk-tissue, we may find the surface moist, glistening like satin, or broken up in fine points like in velvet, or slight superficial defects of the epithelium, giving a moth-eaten appearance.

Further, the mucous membrane may present an irregular surface, with minute elevations and depressions, still covered with epithelium, a condition generally described as granulations. The change of cylinder into pavement epithelium can be demonstrated by touching the surface with tincture of iodine; pavement epithelium immediately assumes a brown stain, while the cylinder epithelium does not show a change in color, but only a variation in shade. The most remarkable pictures are presented by the lacunæ Morgagni, which may appear as more or less sharply defined small pits or hollows, embedded into the mucous membrane. To see the lacunæ to their full extent, it is often necessary to direct the tube from the central or axis position into an eccentric one, so that only a part of the mucous membrane becomes visible as a perfectly flat and level field. On some occasions I would notice only a sharp indentation in the mucous membrane, as if a cut had been made with the point of penknife. After unfolding the mucous membrane by means of spiral movements of the visceral end, or by employing a larger-sized tube, I found at the bottom of the apparent cut a widened lacuna in a deep recess of the mucous membrane. Such spiral movements are much to be recommended for studying the detail of the superficial conditions. The wide lacunæ may be found within perfectly smooth and pliable mucous membrane, without any perceptible infiltration except in the immediate neighborhood, like a small wall, but in other cases they are found between reticular strings and ridges of a white, cicatricial appearance, or they may be embedded in a firm, sclerotic tissue, as if carved with the point of a shoemaker's awl. As more rare occurrences I have to mention: papillary excrescences or warts, polypi, cysts, circumscribed patches of epithelial thickening, larger granulations of sago-like appearance, resembling trachoma, and ulcers, or loss of substance. I mention ulcers particularly as very rare, because Berg, in an article published in the *Medical Record* of August 31, 1897, mentions ulcers as an almost common occurrence in chronic urethritis. For the detail of these rarer forms I refer to a former paper, "Endoscopic Studies," published in the *New York Medical Journal*, January, 1895, in which a number of such cases have been fully described.

In looking over the various pathological conditions enumerated and described before, it becomes easily evident that they all represent conditions found in chronic inflammation of the mucous membranes in general, and that all these various changes are due to the same process of chronic inflammation. Usually we do not find every one of these changes in every case or in one single case, but gener-

ally several will be met with in different portions of one and the same urethra. Some will occur principally in the anterior urethra, some we shall find in the bulbous, some in the membranous, some in the prostatic portion. In one spot we may find widened lacunæ, with a soft mucous membrane, and diffuse redness and swelling in the membranous urethra; papillomata in the fossa navicularis extending backward to the middle of the pendulous portion, and rigid connective-tissue infiltration in the bulbous.

Beginning with Désormeaux, attempts have been made to distinguish various forms or types of chronic inflammation: simplex, granulosa, trachomatosa, etc., and Oberländer particularly, on the strength of his numerous careful examinations, supported by studies in pathological anatomy, has established, and provided with separate names, a large number of distinct diseases or types of inflammation, according to the prevailing participation of the glands, of the connective tissue, etc. However interesting and valuable from a scientific standpoint, particularly where supported by anatomical facts, in practice such a classification is hardly of great service, mainly because you will but very rarely meet with the pure type of any of these forms of disease, but will generally find combinations of various types in the same urethra.

It is not within the scope of this paper to enter into the detail of the pathological processes in chronic inflammation. The characteristic change is a proliferation of the cells of the connective-tissue and cell infiltration of the subepithelial and submucous tissue, the conversion of the infiltration into fibrous connective tissue with a tendency to shrinkage and sclerosis. The final result will entirely depend upon the extent of the infiltration, whether it will be limited to the superficial layers, to the mucous membrane alone, or to the submucous tissues and to the corpus cavernosum itself.

Examination with the endoscope has demonstrated that the inflammatory process in a number of cases does not extend deeper than to the mucous membrane proper even after long duration: in such instances the urethra will not lose its elasticity nor suffer impairment of its extensibility even after years. Where the process advances deeper the infiltration and the subsequent shrinkage will produce more intense thickening, and later on, shrinkage, with loss of elasticity and narrowing of the lumen of the urethra itself, conditions usually called stricture. It will always remain a difficult question to decide at which stage of the process the name of stricture really becomes appropriate. It is another open question, whether the progress of the inflammation to its final stage is inevitable, or

whether it can stop at any period either voluntarily or as a result of therapeutic measures. Endoscopy enables us to determine with a high degree of exactness how far inflammation has advanced in every single case and on every single spot, and thereby suggests the proper means for treatment. It does not make much difference whether we give a definite name to every stage or phase; for practical purposes, particularly for the therapeutic indications, it seems to me sufficient to distinguish between superficial and deep inflammation. Where the final stage is reached, where a true organic stricture has been found, the endoscope may still be of great value for diagnosis, in clearing up the configuration of the entrance of the stricture and sometimes to locate the spot through which an entrance by a bougie may be gained.

The endoscope has confirmed beyond doubt the existence of the so-called spasmodic stricture, which had always formed a weak spot in the defences of those who claimed perfection or superiority for the examination with bougies, etc. This spasm usually yields quite gracefully before the endoscope and proves the absence of all pathological conditions which might account for the obstruction to the progress of the instruments.

Of great importance have also been the conclusions obtained by urethroscopy in regard to the participation of the different portions of the urethra in the continuation of chronic inflammation; it has been demonstrated that every part from the orifice to the mouth of the bladder may be the seat of pathological conditions, and that therefore for a thorough diagnosis it is necessary to subject the full length of the channel to examination before determining on the diagnosis and on the appropriate treatment.

Opinions differ widely in regard to the frequency with which the single localities appear as the seat of the disease. It is claimed by some authors that the posterior urethra furnishes a large majority of cases, while others regard the bulbous or the pendulous portion as the favorite seat. My own experience, which extends over nearly twenty years and has been gained from a large number of observations points to the anterior pendulous urethra as the part most frequently affected, principally to the central region in which the lacunæ Morgagni and other glandular apparatus are particularly abundant and well developed; in fact, I consider the inflammation of these glands, probably produced originally by their invasion of gonococci, as the most frequent cause of the persistency of chronic inflammation. Even after a cure has been effected and all traces of a discharge have disappeared for months, the lacunæ which always re-

main more or less wide and deep, may become the source of a non-infectious discharge under the influence of various irritations other than infection with gonococci. It is hardly necessary to call your attention to the fact that the condition of the lacunæ cannot be detected by any other means than the endoscope; the same is true of the rarer occurrences, like polypi, etc., mentioned before.

If you take careful notice you will find that in endoscopic examinations you very often will miss the increase in the lumen of the urethra in the so-called fossa navicularis and in the bulbus, which are usually described and depicted as normal in the text-books. In many instances you will observe that a fossa does not exist behind the meatus, and that the membranous portion will widen but very gradually into the pendulous portion without the sudden plunge into a balloon-like extension as some descriptions and pictures would suggest. I do not believe that the absence of these dilatations is always to be considered as pathological. I wish also to state that I have not infrequently found conditions of chronic inflammation when not the slightest discharge or even filaments could be found by the most careful examination. Only the repeated and urgent request of the patients, who insisted that they had certain sensations of something being wrong in the urethra, induced me to reluctantly apply the endoscope in such cases.

In regard to *treatment*, the endoscope is of practical value in three different ways: *first*, the determination of the nature and of the location of pathological conditions supplies, in the most exact manner, information, on the strength of which we may select those therapeutic measures which promise the best and quickest results, and apply them to the proper spot; *second*, by freely exposing the diseased portions to the eye and bringing them within easy reach of our hand, endoscopy naturally renders possible and invites the application of suitable drugs with great exactness to those parts, and to them only, thereby allowing of the use of much stronger and more effective remedies, which would injure any but the affected portions; *third*, we are enabled by the endoscope to control the effects of any treatment, both applied through the endoscope or otherwise, so that we soon can judge whether the adopted treatment is successful or not.

While I place very high value on the direct treatment through the endoscope, I must emphasize that the first and third points are by far the most important ones. It may have been claimed by some enthusiasts that all ailments of the urethra could best be treated through the endoscope, but that is just as wrong as if others say

that sounds or the cutting instruments are the only effective means of treatment, or if others want to cure all cases by instillations or by irrigations. It, therefore, becomes our first duty after a complete examination of the entire urethra to consider which treatment is demanded by the conditions found. We may decide on sounds and deep injections in certain lesions of the membranous urethra, on dilatation in combination with irrigation in others, or on direct endoscopic treatment, on simple injections, or even on the temporary use of internal remedies. You may meet with cases where anterior injections had been used for months or longer, where you will find a few drops of pus in the edematous and intensely red membranous portion, and a few deep injections will finally cure the trouble; you may find others, again, where the patients have been treated with sounds and deep injections, where the endoscope shows dilated lacunæ in the anterior portion, and a number of direct applications will do away with the discharge forever.

The field for the endoscopic treatment proper is, perhaps, a limited one, but not so limited as some of its opponents would have it. It is principally indicated in those superficial inflammations in which circumscribed patches of the mucous membrane, wherever located, have undergone certain changes, which cannot be affected any more by the usual injections of astringents or parasitocides, because those remedies are powerless in the solutions which may be syringed into the urethra without injury to the healthy or less seriously affected portions. By using as a brush, the simple cotton tampon twisted around a wooden stick or a wire, we may apply much stronger solutions or powders, or even caustics, to the diseased spot, and to them alone, under the general rules which are applicable to all mucous membranes; we may even use surgical instruments, of which a large number have been invented, and the cautery.

It is obvious that for the lacunæ Morgagni, no other treatment is so available as the endoscopic one. Owing to the depression of the fundus of these little pits below the surface of the mucous membrane, and often their seclusion within deep folds, no fluid that passes through the urethra, either from within or from without, will reach them, even if it were strong enough. Through the endoscope you may expose them to their full extent, impregnate the entire cavity with strong solutions, or introduce a solid caustic—for instance, the point of a crystal of sulphate of copper, or a knife, or an electric cautery.

Polypi, warts, and the other rare conditions undoubtedly can

only be treated with the aid of the endoscope, the various methods in use I cannot mention here. But even cell-infiltration and inflammatory exudations are, to a certain extent, amenable to local applications, particularly of tincture of iodine, ichthyol, carbolic acid, and Lugol's solution and trichloroacetic acid, either alone, or, better still, in combination with other methods, particularly with metal sounds or with Oberländer's dilatator. Instead of using irrigations after the dilatation, as advised by Oberländer, I often introduce the endoscope immediately after the withdrawal of the dilatator, watch the effects, and make local applications. Lacunæ, appearing before as deep, round, sharply defined pits and surrounded by greatly resistant tissue, now are transformed into longitudinal, more or less patulous slits, into which solutions may easily be applied; rents which have been made intentionally or unintentionally are treated with liquor ferri to stop bleeding, or with powdered iodoform. By judiciously alternating between dilatation, sounds, irrigations, etc., even quite advanced infiltrations may gradually be reduced to more or less normal conditions.

It is impossible to give any exact rules on the selection of the remedies and of the strength of their solutions in the single cases, besides those applying to the local treatment of chronic inflammation of the mucous membranes in general.

The solutions of nitrate of silver, in the strength of one, two and one-half, five, ten, and twenty per cent., besides the solid stick or a fifty-per-cent. solution, as strong caustics, play a very important part, particularly as long as gonococci are present in the discharge or in the filaments; sulphate of copper, two, five, and ten per cent., or the point of a solid crystal, tincture of iodine, equal parts of carbolic acid and strong Lugol's solution, equal parts of liquor ferri perchloridi and glycerin, one-per-cent. alcohol solution of corrosive sublimate, ten- and twenty-per-cent. solution of trichloroacetic acid, liquor plumbi subacetatis, iodoform, aristol, dermatol, and airol may all be applied under different conditions. I must confess that it often is impossible to explain why one remedy acts better than another one under certain circumstances.

It is hardly necessary to add much in regard to the last important use of the endoscope, the control of the effects of all treatment. If, for instance, we find the redness and the swelling becoming less and less after each application, the lacunæ appearing less wide, less discolored, the granulations less prominent, and at the same time the discharge is being reduced and finally disappears, we may well claim that our applications have effected the cure. But if, after a reason-

able time, we find no improvement, we shall have to think of a change of the treatment, either milder or stronger, or we shall have to make another careful examination to find out whether some patch of inflamed territory has been overlooked.

As a whole, the effects of endoscopic treatment are by no means magical, and nearly always require patience from all concerned. It is, therefore, advisable not to promise too much, particularly not in regard to the possible duration of the treatment. Those who thoroughly understand how much misery a chronic gonorrhea often means for the unfortunate patient, will agree with me, that if really only a small number of cases are actually cured by the endoscopic treatment, it is worth the while to practise with the endoscope and make its use one of our accepted methods of treatment. I cannot omit to call your attention to the moral effect which the employment of the endoscope often has on the patient; how it encourages his depressed mind and again raises hope for a cure in his bosom. It is the rationality and directness of the procedure which impresses him so much and gives him confidence again. That such an effect may often enough be a great adjuvant to our endeavors will not be called into question by all who are cognizant how deeply the nervous element may enter into the pathology of chronic gonorrhea.

42 East Twenty-second street.

SOME OBSERVATIONS ON THE TREATMENT OF ACUTE GONORRHEA. ¹

By GEO. KNOWLES SWINBURNE, M. D.,
Surgeon to Good Samaritan Dispensary.

IN a paper read before this Society in December, 1895, published in the *Medico-Surgical Bulletin*, February 1st, 1896, written to show the results of irrigation with potassium permanganate by the Janet method, I made the statement that from the time I began to make careful notes of my cases I had used this method in fully one thousand (1000) cases, acute and chronic; and that I could recall only four cases during that time in which epididymitis had developed; two had withdrawn from treatment, one had been subjected to an injection of a strong solution of nitrate of silver in the anterior urethra in addition to the irrigation, so that in one case only of irrigation by permanganate alone had this complication developed while the patient was under treatment. It seemed to me that such a record

¹ Read before the Hospital Graduates' Club, February 24th, 1898.

alone would justify the treatment. Of course I do not mean to intimate that these were the only cases in which epididymitis developed. Cases so frequently disappear from treatment, but they were the only cases that I had seen. In the majority of cases treated since that time this method has been continued, but during the past fall I had been rather startled by the number of cases in which acute epididymitis developed. The work had been done by assistants who were well trained and enthusiastic, but in looking for a cause I think I found it in the method which they seemed to employ to overcome the resistance of the cut-off muscle. My own rule has always been to avoid absolutely any violence in overcoming this resistance, and in many cases it has not seemed necessary to irrigate the deep urethra at all. I noticed, however, that they would fill the urethra with the irrigating fluid, then close the meatus with the nozzle and hold it there until the resistance was overcome by force. Not only that, but they did this in cases where it was not necessary to go into the posterior urethra at all. This entailed not only unnecessary discomfort to the patient, but oftentimes failed of the desired purpose, and, it seemed to me, showed a lack of appreciation of the true method and explains also why many others have given up the method as a difficult thing to do.

In performing this myself I have always followed a plan which succeeds in the great majority of cases. I first get the patient used to having his anterior urethra thoroughly irrigated. When he finds he is not hurt, he will instinctively relax, and often without his knowledge some of the fluid finds its way into the bladder; then he himself soon learns to relax the compressor muscle by trying to perform the act of urination. In this way the fluid flows into the bladder without any violence.

In my office I always have the patient sit on the edge of a chair and see that he gets into a comfortable position, sometimes by leaning back and relaxing himself completely. Then I give him a pus basin to hold in position with the left hand, while I sit on his right. In this way I can often fill the bladder rapidly, even when the height of the reservoir is but $2\frac{1}{2}$ feet. And I make it a point to avoid using any force whatever.

In some very few cases after thoroughly cleansing the anterior urethra, I place the patient on his back, and with a large hand syringe, holding about three ounces, fill the bladder from the meatus without the use of a catheter, after the method suggested by Guiard of Paris.

The strength of the solution I seldom make to exceed 1-2000 for the anterior, and 1-4,000 for the posterior urethra, and feel con-

vinced that this is the best method to pursue in the majority of cases. Some recommend the passing of a soft catheter for the posterior urethra, but I prefer to avoid the catheter if possible.

Others urge that except in the very earliest stages, or the stage of decline, that this method, although it seems to subdue quickly the purulent discharge, yet it prolongs the stage of decline and induces a subacute urethritis which may be found to be refractory to treatment. This has never been my experience; on the contrary, the only discharge which I ever see is that which goes hand in hand with the presence of gonococci and seldom outlives their presence longer than 24 to 48 hours.

In the last year and a half I have added to this treatment the use of argonin in 10-per-cent. solution in the anterior urethra alone, injecting it by an ordinary urethral syringe and holding it in the urethra for a space of 5 to 10 minutes.

In private work I do this twice a day for three or four days according to the case, after that once a day, and in numerous cases have had the satisfaction of seeing the case come to a complete close within a week, and incapable of returning except by a reinfection. I am led to believe that this method is as economical a one for the patient as can be found. The most brilliant cases, of course, are those seen early, but I do not hesitate to apply it at any stage. If it fails it is because of infection of some para-urethral follicle which has been overlooked, or some diverticulum within the urethra. In these early cases the disease seldom reaches the posterior urethra, and often it is never necessary to irrigate the posterior urethra in a given case at all.

I always follow the course of the disease by microscopical examinations, but carry on the treatment several days after the gonococci have disappeared, and keep the patient under observation for a while, and if possible, get him to return within a month for examination.

Under these circumstances the only drugs given by the mouth are for the general condition or to keep the bowels open. Exercise so far as possible is interdicted. Alcoholics are absolutely forbidden during treatment, but attention is seldom paid to diet.

I believe that the success of the treatment depends upon careful attention to details, so that I never advocate giving the solutions to the patient to use himself.

The method of irrigating first with permanganate and following with argonin, I believe to be a logical one. I know from practical experience that it is effective. It may be that the permanganate is

sufficient. It is, however, acknowledged not to be a microbe killer, but its usefulness by irrigation cannot be denied; still we have a percentage of failures—we do not know in what cases it will fail. It is believed that it acts by rendering the urethra a poor culture-medium for the gonococcus. Clinically it has proved itself to be of great use.

Perhaps you will ask me then, why add argonin? Many have found this a very disappointing agent. In some respects I have not. After I wrote my preliminary paper, I continued the study of it for three months, using it alone without the permanganate, in 10-per-cent. strength. Every patient coming early with a first attack was made a subject of study with daily examinations for the gonococci. I had three enthusiastic assistants to help me. This study I have never published. The cases have never been tabulated. My impression of it, however, may thus be summed up:

1. The 10-per-cent. solution is absolutely unirrigating.
2. It causes a rapid diminution of the discharge.
3. It allays inflammation.
4. The gonococci rapidly disappear.

But if the patient stops treatment too soon, the discharge, with the gonococci, rapidly returns. It may be because the method is at fault. Irrigation with argonin might be better, but the drug is too expensive to make the necessary experiments. I attribute the failure to the fact only that it is not possible by that method to bring the drug into contact with the disease at every point.

Now the combination of permanganate irrigation with the argonin, in these acute cases, has in my hands proved itself more efficacious than either alone.

[Since the reading of the above paper I have been substituting for the argonin a new preparation—an albuminate of silver, Protargol, which seems to have certain advantages over argonin. The solutions are more easily prepared and keep for a longer period without decomposition. The strength which I have employed is at first 1-per-cent., but as time has gone on it has seemed to me that this was not as effective as argonin in 10-per-cent. The strength has latterly been increased to 2-per-cent. My impression since using this drug is that in 2-per cent. strength, the first two or three treatments are followed by more pain than with the solution of argonin, but it does not appear to cause any great irritation. In using argonin, unless it was used in a strength of 10-per-cent., the results were not so good.]

Clinical Notes.

MONO-CHLOR-ACETIC ACID IN THE TREATMENT OF XANTHOMA.¹

By JAMES C. McGUIRE, M.D.,
Professor of Dermatology, Georgetown University.

NEARLY all authorities agree with Kaposi's statement that "xanthoma can only be cured by excision or scraping with a sharp spoon." Dr. Fox and others advise the use of electrolysis if patient objects to the knife. Stern reports the cure of several cases by using ten-per-cent. sublimate solution. In the JOURNAL OF CUTANEOUS AND GENITO-URINARY DISEASES, January, 1893, Dr. Morrow reports a very interesting case of xanthoma tuberculatum successfully treated by means of twenty-five-per-cent. salicylic-acid plaster. The report of several cures by means of mono-chlor-acetic acid may be of some interest, as I can find no record of such caustic having been applied to cure this connective-tissue growth:

Mrs. B., thirty-eight years of age, in good general health, states that the yellow patches on the lower lid first appeared four years ago. After an illness in which there was marked jaundice, the patches gradually increased in size for several years, but she had since noticed no change. When she came under my observation one year ago, the lesions were nearly as large as coffee-beans and considerably elevated. The acid was applied to each patch several times. Within a month the disease had completely disappeared. At the present time the site of the lesion is slightly lighter in color than the surrounding skin, but not markedly so.

Mrs. S., forty-five years of age, no history of jaundice, general health excellent, first noticed an eruption about the eyelids four years ago, that has gradually extended. An examination revealed typical xanthomatous patches on both eyelids; those on the lower lid even with the surrounding skin, about the size of split peas; on the upper eyelids considerably elevated and larger. Electrolysis used in the upper patches several times without perceptible result. Then the mono-chlor-acetic acid was applied to all the patches, taking only a part of each lesion at a time, with the result of complete disappearance of the growth. Six weeks later there is no sign of the disease, but the skin is slightly lighter in color than the surrounding cuticle. Several other cases of xanthoma have been treated by the same

¹ Read before the District of Columbia Medical Society, March 22, 1898.

method within the last five years, with a result of the complete disappearance of the disease in each case. Three of these cases have been recently seen, and the only thing noticeable is the slight lightening in color at the site of the lesions. The objection to excision is on account of the pain. The opposition of most patients to the use of the knife is the danger of producing disfiguring scars, and, if about the eyelids, the production of ectropium. In using monochlor-acetic acid there is no pain, and, if the eyes are properly shielded, no danger of injuring these organs. Considerable swelling of the surrounding tissue is sometimes observed, but this soon passes off. The acid should only be applied to a limited surface at a time, not larger than a split pea. When first applied the yellow lesions almost immediately turn white; in a short time a dark crust appears, which should be allowed to separate spontaneously. If the lesions are large and situated elsewhere than on the eyelids, Dr. Morrow's plan of treatment should be given a fair trial.

TWO CASES OF SYPHILIS.

By E. R. OWINGS, M.D.;

Assistant in Genito-Urinary Surgery, in the Johns Hopkins Hospital Dispensary.

CASE I.—July, 1898, Mrs. B. was brought by her husband, who had been under my care for eighteen months. Examination showed on the lower lip, left side, involving chiefly the mucous surfaces, a large induration, 20 mm. in long diameter (duration since November previous), marked enlargement of submaxillary, and cervical glands. Mucous patches in vulva; no pharyngitis or alopecia. No history of roseola could be elicited. The trouble began as a small vesicle, soon followed by a "thickening," which rapidly increased in size, forming a tumor the size of a pigeon's egg. In my notes of the husband's case I have the following: "October 24, 1894. No sign of any trouble, except mucous patches inner, left side, upper lip." Contrary to my advice he married shortly after this. I was unaware of the fact until he brought his wife for treatment.

Interest in the case centers in the accuracy with which infection can be traced to a mucous patch in mouth of the husband.

CASE II.—On January 31, 1894, Mr. S. applied to me, desiring to be circumcised, stating that his prepuce, which had always been tight, was irritated, and that he had been unable to retract it for two or three weeks. On the dorsal surface of the prepuce, just at the preputial border, there was a superficial erosion 5 mm. in diameter, situated on an elevated, indurated base. (Duration about three

weeks.) Glands in both groins were indolently enlarged, those in left groin markedly so. He was informed of the nature of his disease, and on February 4th, was circumcised, the chancre being removed. Constitutional treatment, contrary to my usual custom, was instituted immediately, without waiting for appearance of secondaries, as patient was a bank officer, and desired to escape if possible any disfiguring eruption which would interfere seriously with his occupation. He was accordingly given mercury protiodid, gr. $\frac{1}{6}$, t.i.d. Four weeks later (March 4th) the first secondary symptom appeared. This was a tubercular syphilide confined almost entirely to the face and scalp, being profuse in these localities with a few isolated tubercles on body and limbs; there was also intense headache, insomnia, and general malaise, with marked loss of weight, from 150 to 135 pounds. Increased the mercury to grain i, t.i.d., and gave cod-liver oil. Simultaneously with the appearance of the eruption on the anterior internal surface of the left tibia, from an accidental abrasion, there rapidly developed a large irregular ulcer 4 cm. in diameter which for a long time resisted treatment. At the same time on the penis just posterior to the cicatrix (from the circumcision) two gummata appeared. These increased rapidly in size, and becoming soft, were incised and the contents evacuated; one of the resultant ulcers cicatrized promptly, the second, however, spread rapidly, did not yield to specific treatment, and only began to look healthy after cauterization with nitric acid, when it healed without further trouble. (March 25th.) The majority of the tubercles disappeared, but those remaining on the forehead and scalp had broken down and were transformed into large ulcers, covered with thick crusts from whose border a purulent secretion oozed. On the crown of the head there was a hard, painful swelling, 5 cm. in diameter, this was accompanied by marked increase in cephalagia from which he had never been free. In addition to the protiodid, potassium iodid (grs. xv, t.i.d., and in increasing doses), was given.

March 30th. Ulcers was seen on the scalp which increased in size in spite of local treatment. They were cauterized with nitric acid. On April 4th the ulcers assumed a healthy appearance. On April 13th the gumma of the scalp was larger and considerably softer. With the view of preventing great ulceration I incised the tumor and evacuated a large quantity of gummatous material. A large area of bone, about 6 cm. in diameter, was left denuded of periosteum April 17th. The incision had healed, though the site of the gumma was still prominent.

On April 25th the patient first complained of his throat. In view

of the malignity of the disease have been extremely careful in hygiene of mouth and throat, and until now there had been no trouble with mucous surfaces.

The right post-pillar of the fauces was red and swollen. April 29th. An irregular ulcer appeared on the right pillar of fauces. Until May 1st the ulcer increased in size. Potassium iodid (grs. 7.5, t.i.d.) was beginning to cause symptoms of iodism. The site of the scalp gumma was now marked by a characteristic depressed cicatrix. May 3rd. The ulcer in the throat was healing. General health much improved, the weight normal, no headache, or insomnia. The iodid was reduced to grs. xv, t.i.d., and mercury protiodid, gr. $\frac{1}{3}$, t.i.d., was continued. Under this treatment he continued to progress nicely without further development, when suddenly in October, 1894, after five months of quiet, he began suffering greatly with his throat. Pain was constant and intense on swallowing. As I could detect nothing wrong with the pharynx he was sent to a laryngologist, who discovered a large ulceration, 2 cm. in diameter, at the base of the tongue. This was treated with silver nitrate, beginning with a five-per-cent. solution, and increasing the strength until pure stick caustic was applied. The iodid was again rapidly increased in dose and the mercury increased to grain i, t.i.d. After three weeks the ulceration healed.

There was now another interval of quiet, patient gained in health and spirits. Early in the following year, 1895, he developed a large gumma on the right calf, which persisted for several weeks, but yielded to medication. May, 1895. He showed scattered through his scalp numerous ulcers, following another outbreak of tubercular syphilide. The tongue was swollen to double its natural size, infiltrated, its surface cracked and fissured, points of the teeth being readily distinguished around the border. These lesions again yielded in three or four weeks to vigorous treatment and local applications. He continued in apparent good health until March, 1896, when he again had several gummata of the scalp, and more trouble with his tongue. In June, 1896, several large ulcers were seen on the scalp, and two on the left cheek. Later the iodid was borne badly by the stomach, weight was rapidly lost, and the ulcers extended. A subcutaneous injection in the gluteal region of 1 grain of calomel was made. Injections were continued on alternate days, but after six injections were discontinued on account of pain. There was no supuration, but at the site of each injection there was a hard, painful nodule. Injections of corrosive sublimate (grs. $\frac{1}{12}$ – $\frac{1}{4}$) were administered for twelve days. The ulcers on the face and scalp were some-

what improved. A gumma developed on the left buttock at the site of the injection of corrosive sublimate. On account of this and the pain produced they were stopped and medication *per os* was instituted. Ulcers healed slowly. In November, 1896, two large ser-piginous ulcers developed from small pustules in spite of vigorous constitutional treatment and local cauterizations. These were situated, one on the crown of the head, just posterior to site of previous gumma, the second on left occiput. These persisted for three months, cicatrizing in center but spreading at the periphery. After thorough curetting and cauterization, under general anesthesia, and frequent subsequent cauterization with lunar caustic, whenever at any point they showed a tendency to spread further, they finally cicatrized. These to date are the last of the cutaneous manifestation; there have been, however, in June and September of 1897, gummata of the pharynx, and of the vocal cord, respectively. These yielded readily to treatment, and the patient is now enjoying good health.

Remarks.—Prior to his syphilitic infection Mr. S. was a man of vigorous health. Being also a man of more than ordinary intelligence he from the first appreciated the gravity of his situation. He has under my constant care carried out every direction faithfully, has at no time neglected his treatment, to which and his abstemious regular habits, I attribute his, at present, apparent victory over an infection which, in my experience, is unique in its malignity. Besides treatment as above, at the various periods of the disease, inunctions were used, also as an adjunct, fumigation. Ulcers when occurring were washed daily with hot bichlorid 1-40,000, dressed with calomel, ungt. hydrarg., oleat. hydrarg., etc.; sometimes sprayed with hydrogen peroxid, generally, however, only lunar caustic, or nitric acid, seemed to be efficacious. The chancre was removed, solely to relieve the phimosis, not with any idea of modifying the course of the disease, and there was no promise of any benefit in such direction.

Nosophen and Antinosine.—DUNMORE (*N. Y. Med. Journ.*, April 23, 1898) gives a report of genito-urinary and venereal cases treated with nosophen and its soluble salt. He thinks the former is the best cicatrizing in use, a good germicide and dessicative. It is slightly anesthetic and hemostatic. Antinosine has similar effects on inflamed, catarrhal, and suppurating mucous membranes. It decomposes in watery solution, precipitating nosophen, but this difficulty can be obviated by adding glycerin. Nosophen can be employed to advantage in all forms of venereal ulceration, even phagedenic, and antinosine by Janet's method of irrigation in urethritis. In gonorrhea, the duration was shortened to three weeks by means of solutions varying in strength from 0.25 to 2 per cent.

Correspondence.

MELANCHOLIA OF LEPROSY.

EDITOR JOURNAL OF CUTANEOUS AND GENITO-URINARY DISEASES:

SIR:—Some time ago (February 26, 1898) the *Journal of the American Medical Association*, published a letter of Dr. Hansen's, in which he took occasion to assert that there is no such thing as *melancholy of a leper*.¹ He said that the melancholy in question was an invention of Dr. Ashmead. Will you kindly publish the following case, reported by Professor Meschedes of Königsberg, Prussia, which may shake his conviction:

"From the Report of Dr. Schlessinger, Vienna. Section on Neurology, International Medical Congress, Moscow, August 19 to 26, 1897:

"Professor Meschedes: I consider that leprosy exerts a direct influence on the development of dementia, the cerebral phenomena resulting possibly from some irritating lesions of the nervous system, brought on either by Hansen's bacilli or by their toxins.

"I base this theory on a case of psychosis with which I have recently met in a leper.

"The patient, a man of twenty-eight, showed the first symptoms of leprosy in 1891. In December, 1896, without any obvious cause, he was suddenly attacked with symptoms of acute dementia, which necessitated his admission into my wards. He was discharged in four and a half months, having recovered from his mental affection, and was transferred to the medical wards to receive treatment for the leprosy itself.

"After a short initial period of melancholia, during which the patient refused to take food, hallucinations, loss of all the sense organs suddenly developed, with excitement, oppression, intense motor discharges, and delirious ideas of a religious nature. After a few remissions, and an attack of megalomania, the mental phenomena gradually improved and finally disappeared entirely.

"We may note as constituting the peculiarities of his case, the sudden, *explosive* onset of the mental trouble, and also the existence, during the initial period, of evident symptoms of cerebral and cutaneous congestion. The skin of the face was particularly red and swollen, and the cutaneous sensation evidently constituted the main starting-point of the hallucination. The patient fancied that he was being tortured; he felt a sensation of heat which he himself estimated to have been fourteen times higher than the normal body heat; there also existed a state of sexual excitement of unusual intensity, and a disturbance of the muscular sense which gave him the impression that his whole body was being lifted. The congested state of the skin subsided on parallel lines, with the retrogression of the psychic disorders. The last hallucinations of the period of decline also manifested themselves in the sphere of cutaneous sensation: the patient had the impression that snakes were creeping round his legs.

"The predominance of tactile hallucinations pleads, in my opinion, in

¹ "I will not take Dr. Ashmead's discussion of the Leprosy Conference of Berlin. I will only say that I still have never seen an instance of 'melancholia of leprosy.' This affection is a discovery of Dr. Ashmead, but I regret to say that neither I nor any one else in Norway has any idea of the existence of such an affection . . . the reason is that the brain is never affected in leprosy," etc.—G. A. HANSEN, M.D.

favor of the hypothesis of a *direct action* of the leprosy-bacilli on the nervous system.

"I may add that one of the patient's brothers had also suffered from dementia. No other member of the family had ever exhibited any psychic disorders, so that there can be no question in the case of any hereditary psychopathia, properly so-called, but a simple family predisposition to mental trouble. The question might also be asked whether the attack of dementia was not due, in the case of the patient's brother, to some latent leprous infection."

Yours very truly,

ALBERT S. ASHMEAD, M.D.

210 WEST FOURTH STREET, NEW YORK CITY, June 11, 1898.

MOTILITY OF SPERMATOZOA.

EDITOR JOURNAL OF CUTANEOUS AND GENITO URINARY DISEASES:

SIR:—At the end of the reported discussion of Dr. G. K. Swinburne's paper, "Seminal Vesiculitis and Prostatitis," in the June number of your JOURNAL, there is a note added, signed "G. K. S.," regarding my statement that in certain cases, where we find apparently lifeless spermatozoa in discharged semen, a few drops of water will demonstrate their motility.

In that note it is said that the author "tested in fully fifty cases and in none of them did movement occur in the spermatozoa where no movement existed before."

To this I beg to say that my remark did not refer to cases where semen is passed during or immediately after the act of micturition, but to cases of which Dr. Swinburne says "he tried to empty each vesicle separately, and from each he obtained a very few dead spermatazoa and a very few pus-cells; no mucus." (Page 124.)

In such cases, where there is no urine, the capability of spontaneous motion, checked by the agglutinated condition of the semen, may be restored to the supposedly dead spermatozoa by the addition of a few drops of water, which will diminish the degree of that agglutination.

Yours truly,

BOLESŁAW LAPOWSKI, M.D.

28 WEST FIFTY-NINTH STREET, NEW YORK CITY, June 7, 1898.

Society Transactions.

NEW YORK DERMATOLOGICAL SOCIETY.

TWO HUNDRED AND SIXTY-EIGHTH REGULAR MEETING, HELD ON
TUESDAY, FEBRUARY 22, 1898.

DR. S. LUSTGARTEN, *President, in the Chair.*

A Case of Tuberculosis Verrucosa Cutis.—Presented by DR. S. SHERWELL for Dr. Manley.

The patient was a young man, twenty-four years old, who was employed in a newspaper office. There was no family history of tuberculosis. The patient enjoyed good health until about eighteen months ago, when a lesion appeared on the dorsal aspect of the first phalanx of the left thumb and gradually spread at the periphery until it attained its present size, covering the

dorsal aspect at the base of the thumb and the upper surface of the proximal phalanx. In the center of the lesion, after some inflammation and discharge, partial cicatrization has taken place. Dr. Sherwell said he regarded the case as a good example of tuberculosis verrucosa cutis. The patient's general health is excellent.

DR. HENRY H. WHITEHOUSE said he thought the case was a typical one of tuberculosis verrucosa cutis. In one case that had come under his observation he was able to trace directly the mode of infection. The patient was a woman whose son had phthisis: instead of employing a receptacle for the sputum he was in the habit of using cloths which his mother frequently washed, in spite of the fact that her hands were very much chapped. Subsequent to the boy's death a small lesion appeared on the knuckle of one hand which failed to heal and gradually increased in size and developed into a typical case of tuberculosis verrucosa cutis.

DR. H. G. KLOTZ said the lesion resembled the cases of lupus erythematosus of the hands described by Dr. Hyde of Chicago, and by himself. In one of his cases the patient subsequently died of pulmonary tuberculosis. In his second case where the lesions were located on the dorsum of the foot and ankle death occurred from other causes several years after a complete cure. In his cases the flat scar in the center and the peripheral extension were very similar to what had been observed in Dr. Sherwell's case.

DR. S. LUSTGARTEN said that these cases are often reported under the name of lupus papillaris or L. verrucosus. They no doubt represent the most superficial form of tuberculosis, the chief lesions being in the papillary layer of the skin, and they are much more amenable to treatment than any other forms of tuberculosis. The speaker said he had seen such lesions get welt under the use of salicylic-acid plaster as well as after scraping and the use of an iodoform dressing.

DR. SHERWELL said he had presented this case on account of the characteristic appearance of the lesion. He had been unable in this instance to trace the mode of infection. Usually such lesions are found among longshoremen, or men who handle hides, meats or bristles. As regards treatment, Dr. Sherwell said he has generally been able to effect a cure by first curetting the lesions lightly, and then apply the acid nitrate of mercury, and subsequently the white precipitate or salicylic-acid ointment.

DR. G. H. FOX said that in one case of tuberculosis verrucosa cutis coming under his observation, a typical reaction took place after an injection of Koch's tuberculin. The diagnostic value of such a reaction, however, was rather uncertain, as he had also seen it occur in a case of lupus erythematosus.

DR. LUSTGARTEN said that the earlier preparation of tuberculin gave a more or less marked local reaction in cases of lupus, and occasionally in syphilis and epithelioma.

DR. C. W. ALLEN said that in a case of localized tuberculosis on the back of the hands he had seen a distinct reaction occur after an injection of the original tuberculin. The speaker said it was an established fact that it gives rise to the reaction in lupus and syphilis. He saw no reason why the modified tuberculin should not be more generally used as an aid to diagnosis, and said that he proposed to employ it in a case of supposed tuberculous epididymitis.

DR. LUSTGARTEN said it was sometimes dangerous to employ the tuberculin in the deep-seated forms of tuberculosis as it has been known to give rise to considerable local reaction, and may even cause the disease to spread. He thought it more prudent to employ it only in cases where the lesions were superficial, so that on breaking down elimination could readily take place.

DR. ALLEN said there are those who deny that bacilli from shut-in foci are liable to become liberated and disseminated.

Necrotic Granulomata of the Hands and Arms; Combined with Erythema Induratum of the Legs.—Presented by DR. JAMES C. JOHNSTON.

A young woman with necrotic lesions on the hands and forearms, which were very similar to those in the case shown by Dr. Allen two months ago and called by him "necrotizing chilblains." The patient gave a tubercular family history. The glands in the neck were enlarged, and in this region, as well as on the legs, there were numerous scars left by former tuberculous lesions which had broken down. The lower extremities presented unmistakable signs of Bazin's disease.

DR. ALLEN said that with the exception of the general glandular enlargement and the scrofulous lesions on the legs, this case was identical with the one he had shown two months ago. The necrotic lesions on the hands and forearms seem to commence in the same way and pursue the same course. In his case, however, there was no history or evidence of either tuberculosis or scrofula.

DR. SHERWELL said he still believed in such a thing as a strumous diathesis, of which he thought this case was a good illustration. In these scrofulous individuals the skin is more vulnerable than usual and easily breaks down superficially. This present case, he cared not what other name might be used for it, was, to his mind, a chronic eruption in an individual of low vitality, of strumous or scrofulous diathesis.

DR. J. A. FORDYCE thought that the patient shown by Dr. Johnston belonged to that class commonly termed scrofulous. Such individuals are more liable to tubercular infection as well as infection from pus-organisms. The speaker said he was not prepared to say what the agent was in this particular case.

DR. LUSTGARTEN said he had been struck by the tendency to grouping of the lesions in Dr. Johnston's case; this might arouse a suspicion of syphilis. He would be more inclined, however, to regard them as the result of an attenuated tubercle bacillus which has entered the system and interfered with proper metabolism. In connection with the remark made by Dr. Sherwell, the speaker said that the more recent views on this subject incline to the old ideas of diatheses, which for a time were discarded.

DR. JOHNSTON said he had no doubt that the eruption in cases like the one he had shown was due primarily to an infection from within. In the case under discussion he had kept one of the legs covered with antiseptic dressings, and in spite of this new lesions developed underneath. In a case similar to this one he had excised one of the lesions and made a histological examination, but no tubercle bacilli were found. He thought the lesions were probably the result of the irritating action of some systemic poison.

DR. LUSTGARTEN said the failure to find tubercle bacilli in one of these lesions would hardly justify one in throwing out tuberculosis as an etiological factor. Tubercle bacilli are extremely scanty in lupus and in tuberculous glands. Inoculation experiments with animals would be more convincing.

DR. FORDYCE called attention to the rapidity with which these lesions improve and heal. In one case under his observation the patient had ulcerations on both legs which healed within a few weeks.

DR. LUSTGARTEN said the same thing may occur in tuberculous lesions of the lungs. It is probably due to the mild type of the infection, viz. small number of bacilli or attenuation of the virus.

A Case of Lichen Planus.—Presented by DR. C. W. ALLEN.

The patient was a woman with an acute eruption of lichen planus. There was a group of lesions on the back, which, according to her statement, had

only been present for six weeks, showing all stages of the process. Also a few lesions on the waist and in the popliteal space, where the violaceous color was very well shown. Dr. Allen said that along the outer margin of one foot there were a number of circular lesions which were not much infiltrated. The patient had only recently come under his observation.

A Case of Peculiar Edematous Swelling of the Face with Syphilitic Affections of the Bones of the Nose.—Presented by DR. KLOTZ.

The patient, Esther T., 17 years old, Russian Hebrew, had been under observation since last October, when she came to the German Dispensary in a condition quite similar to the present one. The upper lip was then swollen to almost double its natural size, quite hard, of a pale color, standing out quite prominently; the nose was not changed. Below the right eye, beginning at a distance of about one-half an inch from the lower lid, running parallel to the same, there extends a soft protuberance about two-thirds of an inch in width, covered with a slightly red but perfectly smooth and soft skin. It does not cause any pain or other sensation, but is rather disfiguring. The patient states that four years ago her entire face had been swollen considerably for some time, and that the present protuberance remained while the swelling went away from the rest of the face. Two years ago she says she had smallpox.

Having before observed cases where similar edematous swelling had appeared in the neighborhood of, and in connection with, the development of syphilitic affections of the bones of the face, he had examined the nose and found an ulcerating perforation of the septum, but from the mouth no signs of bone disease could be detected. Under mixed treatment, not very regularly taken, the swelling of the lip had been greatly reduced, while the condition below the eye had not been changed at all; there was no evidence of syphilitic bone disease on this locality.

DR. ALLEN regarded the case as one of indurating erythema, due to specific bone lesions.

DR. SHERWELL said he had seen edematous conditions of the nose and lip—not so pronounced as in this instance, however—in cases of ozena. The speaker called attention to the fact that the thyroid gland seemed to be absent in this patient, which condition perhaps had some bearing on the production of the lesions in question. Edema around the eyes is a well recognized symptom of myxedema, and in such a case now under his observation, the patient, who has very little thyroid gland, is doing well under the thyroid extract.

DR. GEORGE T. JACKSON said that while the absence of the thyroid suggested myxedema, he did not think that had anything to do with the swelling underneath the eye. The cause of the swelling was probably some interference with the circulation in the lymphatics.

DR. FORDYCE said he thought the swelling of the lip was an edema, probably the result of an obstruction to the lymph-channels.

DR. LUSTGARTEN said he thought myxedema could be excluded, as the lesions could be explained from a different standpoint. He thought the swellings were the result of a single or of repeated attacks of erysipelas, where the inflammation extended into the lymphatic capillaries, obstructing them and producing chronic edema. Such conditions are more apt to develop in the eyelids than elsewhere, because of the peculiar distribution of the lymphatics in those regions.

DR. KLOTZ said that while the swelling on the upper lip had gradually gone down under mixed treatment, that under the eye had not changed at all. The speaker said he agreed with Dr. Lustgarten that the origin of the trouble was probably an attack of erysipelas, which had left this chronic

edema of the tissues. Cases, Dr. Klotz said, had recently been described by a German author. A somewhat similar condition is observed in edema of the prepuce, which may persist for a long time, in which the repeated attacks of benign periodical erysipelas had produced elephantiasic conditions of the face.

DR. LUSTGARTEN said that these edematous conditions are sometimes observed in syphilis, usually in the genital region. Finger in such cases has found streptococci—not the true streptococcus of erysipelas.

A Case of Dermatitis Exfoliativa.—Presented by DR. GEORGE T. JACKSON.

The patient was a married woman, 46 years old, an Italian. She had been presented by him at the November (1897) meeting of the Society for a scaly eruption on the palms, the true character of which could not then be made out. Since then the eruption has involved both forearms, as well as the legs and it now bears a close resemblance to dermatitis exfoliativa, with large, papery scales. There is very little induration of the underlying skin. The skin is red, dry and when the scales are removed presents that glazed appearance seen in dermatitis exfoliativa. There is no itching. The hands appear as if the skin was shrunk, it being drawn tightly over the underlying parts.

DR. FOX said the eruption on the arm in this case was typical of pityriasis rubra Hebræ and he expressed the opinion that it would be unsafe to predict the future course of the affection. In view of the marked changes that had occurred since the patient was first shown last November, he said he would not be surprised if it spread over the entire body and persisted during the woman's lifetime. As regards the distinction between dermatitis exfoliativa and pityriasis rubra, Dr. Fox said he had always considered the acute cases, such as often follow psoriasis and then, after spreading over the entire body, get well, as examples of dermatitis exfoliativa, confining the term pityriasis rubra to those cases which run a slow course, the flaking gradually diminishing, until in the course of years the entire skin becomes reddened and atrophied; these cases are incurable, and in Germany they have been attributed to a central nerve lesion. Clinically, these two affections are sometimes indistinguishable, but if we take the history into consideration the distinction between them can usually be made.

DR. FORDYCE said he thought the case was one of pityriasis rubra. The appearance of the hands is very similar to a condition sometimes observed in trophic affections.

DR. WHITEHOUSE said he was inclined to believe that the eruption would gradually spread over the body and develop into a distinct case of pityriasis rubra. In one case which had come under his observation at the Skin and Cancer Hospital the lesions first made their appearance on the hands, where they remained localized for a long time, the eruption being diagnosed as an erythrodermia. Gradually, however, it involved the arms and then the body, subsequently developing into a typical pityriasis rubra, to which the patient finally succumbed.

DR. JOHNSTON thought it was unusual for a pityriasis rubra to commence on the hands and spread as in this case. The speaker said that the course of the eruption in this case brought to mind a form of dermatitis which has been described within the past two or three years in the *British Journal of Dermatology* and elsewhere under the name of dermatitis repens.

DR. LUSTGARTEN said he did not think the case had any of the characteristics of dermatitis repens. He regarded the eruption as an example of pityriasis rubra in an early stage.

DR. JACKSON, in closing, said that when the patient was shown at the November meeting, some of the members suggested psoriasis and others

syphilis, while the rest did not care to venture a diagnosis. The eruption in its present form had only existed a few weeks. The patient states that some years ago she had a similar eruption, from which she recovered.

DR. JACKSON said his own opinion was that the case was one of pityriasis rubra or dermatitis exfoliativa.

Report of Cases Presented at Previous Meetings.—DR. FORDYCE said that his case of universal lichen planus, shown at the January meeting, was improving under the use of arsenic, in increasing doses. Many of the lesions which were so typical of lichen planus have entirely disappeared.

DR. FOX stated that at the last meeting he had shown a case for diagnosis. Several of the members made a diagnosis of lichen rubra, or pityriasis rubra pilaris at that meeting, and since then new lesions have developed which tend to confirm that view.

DR. ALLEN showed a photograph of a case of lupus erythematosus involving both cheeks, the larger portion of the face, both ears, and parts of the scalp. The photograph had been taken when the patient came under his observation last June. The disease had then existed for one year. The lesions have now almost completely disappeared under the use of pyrozone (25 per cent.), and the application of emplastrum hydrargyri of the old Pharmacopœia, spread and applied at night, before retiring, while during the day the gentleman attended to business without local dressing.

Chancre of the Middle Finger.—DR. S. SHERWELL said he had recently seen a physician with a chancre at the tip of the middle finger of the right hand, which was followed in due course of time by a macular syphilide. The speaker referred to the frequency with which the middle finger is the site of the initial lesion of syphilis as compared with the forefinger.

DR. R. W. TAYLOR said the index-finger and the thumb were the two most common sites of digital chancres. He has seen cases of chancre of the middle and little fingers: it is, however, rarely seen on the ring-finger. The speaker said he recently saw a man who had had a chancre at the end of the little finger twenty years ago which permanently destroyed the nail.

DR. JACKSON said he had seen two cases of chancre on the thumb.

DR. KNOTZ said that in a chancre of the middle finger the infection might have occurred through writing material—a pen or pencil that had been previously held between the lips by some one affected with syphilis.

DR. WHITEHOUSE said that last summer he saw a physician who had contracted a chancre of the middle finger while examining the throat of a syphilitic patient. The doctor had a small, unprotected lesion on the finger, and in examining the throat the finger rested on the patient's lip. He suggests that this procedure so constantly practised by all physicians might possibly be responsible for the very frequent occurrence of the initial lesion on the middle finger, as observed by Dr. Sherwell.

DR. ALLEN said that the last instance of digital chancre which he had seen, the lesion was on the middle finger. He mentioned another instance of a physician who had contracted a chancre of the index-finger from a patient during confinement. Recently he saw a woman with a chancre of the arm, right over the biceps; the patient could not account for it in any way, but it was probably due to a bite or a scratch.

DR. R. W. TAYLOR said that surgeons sometimes become inoculated with syphilis through fissures or an eczematous condition of the fingers which results from the frequent application of strong antiseptics. Several such cases have come under his observation. Cases have been reported where women acquired a chancre of the arm by carrying syphilitic children.

DR. SHERWELL said he had seen a woman with a chancre on the chin, where she had been bitten by her husband. In another case a man acquired a chancre on the chin by wiping himself on a common towel after shaving. He also mentioned the case of a young girl who acquired a chancre at the tip of the nose by snuggling a syphilitic child.

Pityriasis Rosea.—DR. FORDYCE said he had recently seen two cases of pityriasis rosea, the patients being girls, aged, respectively, 13 and 16 years, who were occupying the same room. In both cases ringworm was excluded by repeated examinations of the scales.

DR. FOX said he had seen pityriasis rosea occur at the same time in mother and child. He had regarded it as merely a coincidence.

DR. LUSTGARTEN said that several years ago he had reported three cases of lichen planus occurring in a mother and two of her daughters in the course of four years. Recently he saw a case of lichen planus in a boy of 17 whose mother he had treated for the same disease a year previous. Dr. Lustgarten said that some time ago he had reported a case of gangrene of the skin following exposure to the Roentgen-rays; at that time the patient was practically well, but soon afterward there was a relapse, with breaking down of the tissues and a very painful erythematous condition of the surrounding skin. The speaker thought that perhaps the relapse could be attributed to the fact that soon after her recovery the room next to the one which she occupied was let to a man who continually experimented with the Roentgen-rays, and in her weakened condition it was possible that the rays affected her, despite the fact that she did not come in contact with them.

X-Ray Dermatitis.—DR. BRONSON reported a case of X-ray dermatitis affecting the knee-joint with subsequent amputations of the limb. The patient, who was in the care of Dr. John P. Tuttle, at the N. Y. Polyclinic Hospital, was a man about 60 years of age and for many years had suffered from a diseased knee-joint following injury. For purposes of investigation the knee was exposed for about an hour to the Roentgen-rays. A dermatitis with gangrene followed and had continued for upward of six months. At one time the gangrene involved half the circumference of the limb upon the anterior and lateral surface of the joint. Latterly it had diminished somewhat in extent, but for the last month or more had remained practically unchanged. The burning pains were most distressing both by night and by day. While in the hospital it was found that continual irrigations with carbolyzed water gave the most relief, but opiates could not be dispensed with. The patient was of extremely nervous temperament, and inasmuch as there was a prospect of the trouble continuing for several months to come, besides the fact that there was an incurable disease in the interior of the joint, it was decided after consultation with Dr. V. P. Gibney to amputate. This operation was done at about the junction of upper and middle thirds of the thigh—a high operation being required in order to avoid the skin inflamed by the X-rays. A microscopic investigation had been only partially made, but the partial examinations together with the gross appearance showed that not only was the skin involved, but that there was an inflammation extending down to the bone. The tissues were matted together and dense, then there were even some signs of the bone being affected. The blood-vessels had been occluded and the connective tissue, both the subcutaneous as well as the intermuscular, showed marked changes. The extent and depth of these changes would seem to show that an attempt to cure the X-ray dermatitis by cutting or scraping away the gangrenous portions—as some have advised in similar cases—would certainly have been futile. Following the amputation the patient made a rapid recovery.

DR. ALLEN said he wished to call attention to certain cases of ringworm

in young girls, the lesions occurring on the back of the scalp, as large, round, typical patches of scalp ringworm being covered by the long hair, are apt on this account to escape observation for some time in a certain class of people. What first attracts attention is an eruption over the neck and shoulders. The patches are not like the ordinary circinate lesions of ringworm of the body, but rather of irregular sized and shape. There is but little scaling, and in many respects the lesions resemble those of pityriasis rosea: so much so, that without any ringworm on the scalp as a guide and without examining the scales, the diagnosis would be difficult.

DR. G. T. JACKSON said the subject of reaction from injections of tuberculin having come up, he wished to speak of some experiments that had recently been made at the Vanderbilt Clinic with pilocarpin and thiosinamin. The results were not satisfactory, but the preparation of pilocarpin gave a very distinct local reaction in lupus vulgaris, lupus erythematosus and epithelioma. An injection of thiosinamin in keloid also gave a beautiful reaction. He was somewhat skeptical of the diagnostic value of tuberculin when he remembered that the same kind of local reaction took place with the injection of other substances.

DR. JOHNSTON said that at the last meeting of the Society there was considerable discussion regarding the possible poisonous effects of chlorate of potash, given internally. *Apropos* of that discussion he recently read the report of a case where a boy aged 17 years, at the Vienna General Hospital, was given a gargle of potassium chlorate, and of this he swallowed one quite liberal dose. He died within three days with all the symptoms of chlorate of potash poisoning, *i. e.*, hemorrhage from the mucous membrane, methemoglobinuria, etc.

NEW YORK ACADEMY OF MEDICINE.

SECTION ON GENITO-URINARY DISEASES, STATED MEETING, HELD ON TUESDAY EVENING, MARCH 8TH, AT 8.15 O'CLOCK.

DR. GREEN, *Chairman*.

A Case of Epididymitis.

DR. SWINBURNE presented a case, a man, thirty-two years old, who gave no venereal history, and no history of traumatism. The patient came to the dispensary one week before with pain and swelling in the left epididymis, which under a ten-per-cent. ichthyol ointment and a suspensory had nearly recovered. The prostate was normal but the seminal vesicle on the corresponding side was distended and painful, this was emptied by stripping, but microscopic examination revealed no micro-organisms upon staining. There were found present the ordinary secretion of the vesicle, spermatozoa without motion, and a few pus-cells. The urine was perfectly clear.

DR. PETERSEN said the patient had just confessed to him that he had a urethritis eight years ago; the patient had just recalled it.

DR. SWINBURNE stated that the patient had given him the same history but the history was vague, the patient remembering that he had had a urethral discharge lasting a day or two.

Kelly Male Cystoscope.

DR. G. K. SWINBURNE presented the instrument which is essentially a long, straight, endoscopic tube with a large handle, it is longer and of smaller caliber than the Kelly tube for the female, being about 18 cm. in length and 24 to 28 F. in caliber. The first work in this line was attempted by Kelly in November, 1897 (*Annals of Surg.*, p. 71, 1898). Dr. Kelly had

given an exhibition a few weeks before at St. Luke's Hospital to show its manner of employment. Some of those present seemed to be of the opinion that by its use the urethra is subjected to considerable violence. Dr. Swinburne had had no experience with the instrument, but presented it because he thought its existence should be more widely known. A straight tube is rather difficult to pass through the deep urethra. If its use should prove to be practical under cocain or eucaïn, it promises to be of material assistance, if, however, it can only be used under a general anesthetic its use will always remain extremely limited, for there is no question that at first one must practice with it a great deal and become thoroughly acquainted with its peculiarities before he can make any practical use of it.

DR. L. B. BANGS said that from time to time a straight tube had been passed into the bladder but that it was extremely difficult. The great majority of men cannot pass the straight tube into the bladder. In many cases it is impossible to pass the tube at all. Dr. Kelly said it could be done and Dr. Bangs invited him here. In company with Dr. Abbe, a *séance* was held at St. Luke's Hospital. The first case given was one that had no swelling or outgrowth, the tube was easily passed and the ureters were demonstrated without difficulty. There was little difficulty in getting the appearance of the bladder. The second case he knew would be a difficult one. The straight tube could not be passed into the bladder and so they desisted from further trial, although the work was done under general anesthesia and the case was that of a young man.

THE CHAIRMAN asked Dr. Bangs if, in the cases in which the instrument could be passed into the bladder, a powerful light was used.

DR. BANGS answered in the affirmative, and that the mucous membrane could be seen distinctly and the ureters brought into view. The rectum had been distended with air and thus the base of the bladder lifted. The man was placed in the knee-elbow position, tipped forward.

DR. VALENTINE said that although he could see how an instrument like the one shown would do for cases with moderate enlargement, yet he was afraid that for diagnostic or operative purposes it must necessarily fall short of anything like the Albarran cystoscope. Again, as the bladder must be emptied instead of distending it, the view of the parts of the bladder must necessarily be very limited. If Albarran's cystoscope, or Nitze's, or Casper's be used with direct light through a transparent fluid, we can, by means of about five turns of the instrument, get a perfect view of all the parts of the bladder. The speaker thought that if this instrument was to be used with a view of catheterizing the ureters, the utility of the instrument must be extremely limited.

DR. SWINBURNE said he had had no experience with the instrument at all, having received it but two days previously. He presented it because it seemed to him that it ought to be known. If general anesthesia must be used the instrument, he thought, will be of but little use, and one must acquire considerable skill with the instrument before finding it of use. So far as the field of vision was concerned he thought one could see the bladder with this instrument as well as with an electric light in the bladder. Dr. Kelly, in his report, mentioned a case which was supposed to be, with Casper's instrument, a papilloma of the bladder; with this instrument it was found to be a blood-clot in the bladder with blood coming from one of the ureters.

DR. L. WEBER reported the **Further History of the Case of Hypertrophied Prostate**, operated upon by Bottini's method.

From about February 5th to March 1st the patient's bladder has been irrigated with a 1-8000 solution of nitrate of silver, but the vesical catarrh still continues. He voids his urine without the use of a catheter, but the

amount of residual urine remains about the same. By rectal examination the prostate gland was found to have about the same configuration as before the operation. One improvement noticed is that the patient can now pass his urine voluntarily down to the residual urine line; before operation he could only pass a few drops voluntarily.

DR. KELSEY said he would like to ask whether more than one application of Bottini's instrument had been made, and how many applications were thought to be advisable,

DR. WEBER said he could not answer from his single experience. Dr. Kelsey was evidently not present at the meeting when he had reported the case in detail. At the operation the circuit was not closed and it was the cold steel which caused a laceration of the parts. Freudenberg's modification of Bottini's instrument was used. After this unfortunate accident had occurred the operation had to be done over again and it was done. There followed no bad consequences except from loss of blood. After Bottini's operation a number of cases have been reported where the patients were no longer obliged to resort to the catheter. The speaker said he could see no danger in repeating the operation. Freudenberg did the operation in one case several times, as also did Czerny of Heidelberg.

Syphilis of the Nose and Throat.—DR. F. H. BOSWORTH read a paper on this subject.

His own experience with syphilis had been confined largely to the manifestations of the disease in the upper air-tract. In regard to syphilis of the nose it would seem to confine itself chiefly to the question of a gummatous deposit with its subsequent breaking down and the formation of an ulcer. An outbreak of syphilis consists of a deposit in the mucous membrane of an infiltrating mass of inflammatory products. If this occurs shortly after the primary lesion, this infiltration confines itself to circumscribed areas and is quite superficial giving rise to condylomata or mucous patches. Ulceration rarely follows a mucous patch. If a longer period elapses after the primary sore we then have a more extensive infiltration of tissue, a larger deposit of inflammatory process, and a deeper invasion, resulting in the development of an ulcer. A syphilitic ulcer of the nose is the result of gumma. If this is limited, it is called a superficial ulceration; if it involves a greater area of tissue, it is called a deep ulceration. In the nose infiltration is liable to extend to bone or cartilage giving rise to the typical excavated ulcer, so-called, of tertiary syphilis. On account of its environments in the nasal cavity the development of an ulcerative process from a gummatous deposit is slow. This is probably due to the fact that the parts are so well protected from external violence and to the obliteration of the arteries. Erichsen's definition of an ulcer is "solution of continuity with a progressive waste of tissue." He considered this the best definition of an ulcer in medical literature. As regards syphilis of the nose he doubted whether it showed any marked tendency to extend progressively. In this region it showed a tendency to explode. It lurks in the system inert and harmless until it has gathered energy sufficient for an outbreak. The bone or cartilage, denuded by ulceration, becomes the seat of necrosis; a sequestrum is formed which, remaining *in situ*, acts as a local irritant, continuing the process, with its discharge of pus; these symptoms persist until every portion of dead bone is removed or destroyed. A point he wished to make in this connection was that we were too apt to regard syphilitic processes in the nose as progressive disease. His own observations had led him to believe that the destruction of tissue was the result of an explosion of the disease; the virus remains quiescent for a certain period and no mischief is done until there is a new outbreak. The ulceration of the nose becomes, for the time being, a local disease requiring local medication or operation.

In syphilis of the throat (pharynx only) the chief lesions are mucous patch, superficial ulcer, gumma, and deep ulcer. Mucous patches in this region should be destroyed in as effectual a manner as possible; he preferred the solid nitrate-of-silver stick. In the pharynx we recognize a tendency to slow progression of ulcerative action; there is little explosive tendency as there is in the nose. While the superficial ulcer involves but a small portion of the pharyngeal wall, the deep ulcer, as a rule, invades the whole pharynx. The deep ulcer results from a gummatous deposit which invades primarily the whole width of the pharynx in most instances. Here, too, we may have an instance of the explosive character of the syphilitic outbreak, for, after the mischief has been done and the deep ulcer formed, the process seems to be arrested for the time being. He had never met with an instance in the clinical history of this disease that justified him in the belief that it was possible to convey syphilis to a fellow, or transmit it to an offspring later than three years after the primary sore.

As to the treatment of the disease, iodid of potassium in large and increasing doses, increasing to tolerance if necessary, should be used for the local outbreak and a mercurial treatment, from eighteen months to two years, for the general condition after the local manifestations have disappeared. In regard to the local treatment of the mucous patch, of the superficial and deep ulcer, no treatment will be efficient without the administration at the same time of iodid of potassium. Use cleansing lotions and the application of euophen and iodoform.

DISCUSSION.

DR. BANGS said he was struck during the reading of the paper by the term "explosive" which Dr. Bosworth used. This word, he thought, had been correctly applied. He had seen a patient, in whom syphilis was apparently latent, go away on a hunting trip, have a chill, foul odor in the nose, and come back in less than two weeks with the vomer destroyed. The ulcers of the pharynx, seen among the lesions of syphilis, are most amenable to treatment.

DR. J. A. FORDYCE said that in some cases of chancre of the anterior nares, the virus was projected from the mouth while the patient was undergoing treatment. In some cases it may be infected by means of the fingers. Chancres of the tonsil are not so rare as chancres of the anterior nares. It is very important to recognize extragenital lesions because in certain cases the mistake is made that it is a malignant tumor and excised. Chancre of the tonsil must be diagnosed from diphtheria by the objective signs. Frequently this is covered by a grayish membrane and the enlargement of the lymphatics met with, on first examinations might lead to a mistaken diagnosis. The laboratory examination should make it clear. It seemed to the speaker as if syphilitic ulcerative processes about the pharynx or mucous membranes were apt to be followed by cachexia, on account of the facility with which toxins are absorbed into the system.

DR. C. W. ALLEN said that chancres here are certainly rare. There are some reasons why it should be so. We do not go into the nose with instruments which might carry the virus as frequently as we enter the mouth. However, chancres had been seen there. The speaker had had a case referred to him by a nose specialist to see if a lesion of the vomer side might have anything to do with his special line of work. He had shown the patient at the Dermatological Society and almost all the members had agreed that it was a case of chancre. Of course, a diagnosis in this situation is extremely difficult. The speaker was sorry the reader did not refer to the outside lesions of the nose in the various stages of syphilis. He had so

often seen destruction of the ala by neglect or faulty diagnosis, the condition being mistaken for lupus, skin tuberculosis, or cancer and applications perhaps, of a soothing nature, having been made and internal treatment neglected until the process was so far advanced that nothing short of extensive ulceration and deforming loss of tissue could result. The speaker said he would like to know of some way to attack the very beginning of the nose troubles which go on to loss of bone because it so often happens that perforation results. He thought the nose should receive treatment from the beginning of our care of a syphilitic patient in the same way that we send patients to a dentist to have the teeth examined and put into order at the outset. The speaker referred to a recent case that he had seen—and he saw of late almost as many chancres on other parts as upon the genitals—in which the chancre was situated at the junction of the nose and the upper lip in the median line. The history that the man gave was that a nurse had infected his child. The family doctor said the disease was syphilis and examining the nurse, found her syphilitic. She had been in the habit of feeding the child with a spoon the contents of which she had tasted before giving it to the little one. The child's mouth had become so sore that it was unable to take food with comfort and the mother had put the child to her breast. In this way the mother acquired a chancre of the nipple followed by a generalized syphilide. Six months later, in some unaccountable way, the father became infected in this peculiar situation. The sore had existed six or eight weeks without showing any signs of healing. In the meantime a roseola had appeared. He was placed upon large doses of bichlorid of mercury by the mouth and the chancre began to heal at once and had disappeared except for the outline and staining. The speaker did not think there was any reason why chancres should not occur within the nose as well as anywhere else, excepting that the virus has a poorer chance of gaining an entrance there. He called attention to a very important point in the congenital form of infantile syphilis, viz., "snuffles," which is usually the first sign.

DR. KLOTZ stated that he could not agree with the author of the paper if he claimed that secondary symptoms of syphilis did not occur within the nasal cavity. He certainly had observed mucous patches within the anterior portions of the nose. Besides, he wished to call particular attention to one characteristic and often painful lesion, the fissured papule in the corners of the nares, involving both the skin and the mucous membrane. They formed a hard, circumscribed infiltration which soon would crack. During the night a crust would be established, particularly where the vibrissæ were well developed, and be torn off in the morning soon to reappear again. In regard to drawing a line between superficial and deep ulcers in the nasal and pharyngeal cavities, he had always considered as superficial those which were due to the breaking down of mucous patches, the deep ones as due to the destruction of gummatous new formation, including portions of the original mucous and submucous tissue. The former would disappear without leaving any permanent changes, while the latter would always leave a scar. Clinically it was almost impossible to apply the name of the gumma to all the products of tertiary syphilis. On the skin as well as on the mucous membranes there occurs a diffuse, tense infiltration of the tissues with the tendency to a slowly progressive decay, particularly on the borders of the ulcers. He had observed this process on the posterior wall of the pharynx, and, in one case, one of the most extensive destructions of the nose he had ever seen, where nothing remained but a mere shell of the nose and barely enough of the upper lip to form a bridge between the two sides. Here the infiltration spread from the nose over the inner surface of the lip, almost reaching its free border. In this

case protonucleins used internally and externally seemed to arrest the progress of the disease. On the posterior wall of the pharynx he had several times observed circumscribed gummata in their early stages, not exceeding the size of a cherry. They broke down, formed an ulcer and healed rapidly under treatment, without extending over the entire surface as described by Dr. Bosworth. Finally, Dr. Klotz wished he could share the favorable opinion of Dr. Bosworth in regard to the limitation of the infectiousness of syphilis to three years.

DR. BOSWORTH then closed the discussion by stating that he would add a few words in regard to perforation of the septum. He said we were all apt to regard all perforations of the septum as syphilitic. He had never seen a case of syphilis in which the cartilage of the nose was primarily involved, but that it was destroyed by extension unless treated properly. The idea, too, that perforation of the septum could only occur from ulceration was not strictly true; he referred to the "sand-blast" action of the inspired air as a cause. He wished to bring up the point in regard to the transmissibility of syphilis. He had never seen a case where syphilis has been transmitted after three years. Syphilis must be self-limited, or else the whole world would become syphilized. If the syphilitic virus remains in the system and its transmissibility is acknowledged, the world certainly runs a great danger of becoming syphilized. We often have a history given us of a man who has had syphilis and, at the time of marriage to a healthy woman, is not cured of the disease; in time he begets a healthy child. This man cannot be prevented from marrying if the disease is checked and he has taken his medicine conscientiously. As regards the tertiary form of ulcer, the difference between a superficial and deep one is an arbitrary one. The depth of the ulcer, too, depends upon the age of the disease.

Selections.

SYPHILIS AND CUTANEOUS DISEASES.

In Charge of Dr. Boleslaw Lapowski.

The Treatment of Syphilis.—SCHWIMMER (*Wien. med. Presse*, No. 44, 1897) while agreeing that removal of the primary sore can at best palliate and never cure the disease, recommends that the use of mercury should be begun before the onset of secondary symptoms. He states that of fifteen cases of severe early syphilis seen by him during the last three years not one had been mercurially treated. He deprecates any reliance being placed on the severity of the primary symptoms as a guide to the subsequent course of the disease, and holds that all cases should undergo the same medicinal treatment. He points out that the discovery of the organisms of the soft sore and of gonorrhea has led to no improvement in the therapeutics of those disorders, and considers that the possibility of a bacterial cause for syphilis should not interfere with its present empirical treatment. With regard to the duration of treatment, with which the question of permissibility of marriage is bound up, Schwimmer quotes two cases in which, after prolonged treatment and freedom from symptoms, patients were allowed to marry; no infection of the wives took place, and each had two healthy children. Nevertheless, each developed eight years after infection further syphilitic mischief, in one case affecting the testicle, in the other the peristomium. He concludes that the most prolonged treatment (three years Fournier, five years Neisser) cannot absolutely protect against relapses. As such

lengthy treatment is very depressing, both physically and morally, he considers two years enough, but does not recommend marriage till the end of the third or fourth year.

Treatment of Syphilis with Serum of Mercurialized Animals.—TARNOWSKY AND JAKOWLEW (*Semaine Médicale*, August 25, 1897) give the results of their experiments. Three colts were injected with from 4 to 6 grams of calomel in the course of two and one-half months. With the serum of these animals sixteen cases of syphilis in various stages were treated by gluteal injections of 10–20 c.c. The average number of injections was seventeen. No effect on the disease took place in any case. On the contrary, evil effects were noticed, including anemia, pyrexia, joint and muscular pains, and albuminuria. The authors conclude that treatment of syphilis with mercurialized serum is at present contraindicated.

NEUMANN (*Wien. klin. Rundschau*, Nos. 47 and 48, 1897) holds that no remedy can be depended upon to ward off the onset of constitutional symptoms in syphilis; the most that results is their temporary postponement. He admits, however, that exceptionally abortive treatment appears to be successful. Mercury and iodine are specific antisiphilitic remedies which do not destroy the cause of syphilis, though they control its products. No other remedy is yet known which acts directly on the cause of syphilis, whatever that may be, and of this many proofs can be adduced. Thus the abortive treatment would, if these remedies acted on the cause of syphilis, utterly destroy it before it could take possession of the whole organism. But of 100 cases thus treated in Neumann's clinic, not one remained free from secondary symptoms. Again, saturation of the organism with mercury or iodine does not prevent relapses, which have occurred up to fifty-five years after infection. Late siphilitic manifestations appear most frequently on the very sites of the early lesions, which would be impossible if the cause of the disease had been destroyed. *Per contra* mercury and iodine are often ineffectual in well-marked syphilis. By whatever remedies and in whatever manner treated from six to twenty-two per cent. of siphilitics remain uncured, that is, develop tertiary symptoms. From these considerations Neumann concludes that the symptomatic treatment of syphilis is the sole rational one, and that it acts by establishing a temporary or permanent immunity to the ever-present cause of the disease. The "chronic intermittent" treatment of Fournier referred to above is not to be recommended, as the results obtained by it are no better than by the symptomatic method.—*Brit. Med. Journal*.

Syphilitic Jaundice.—WERNER (*Münch. med. Woch.*, July 6, 1897) bases his observations on 57 cases occurring among 15,799 cases of early syphilis. Syphilitic jaundice is characterized by (1) its appearance in the early secondary stage; (2) the presence of fresh specific manifestations; (3) the influence of treatment; and (4) its sudden development without gastric disturbance. As regards the last point it must be remembered that slight gastric symptoms may accompany the appearance of constitutional syphilis. Long duration is not characteristic of syphilitic jaundice, as catarrhal jaundice may also last a long time. In typical cases this icterus occurs at a time when syphilis affects the skin and mucous membranes. There are some other cases in which the above characteristics are not always present. The author does not believe that mercury can be the cause of the jaundice. In these more exceptional cases caution is needed in coming to a conclusion. Among the 57 cases there were 11 atypical ones, in some of which the jaundice followed upon a relapse, in others it preceded a relapse, and in the remainder took the place of the relapse. The frequency of syphilitic jaundice was represented by 0.37 per cent. It occurs more frequently

in women than men, but then the observations in women were more complete. Ordinary catarrhal jaundice may occur in the syphilitic, and here the author refers to an epidemic of jaundice in which many prostitutes and other women under observation were among those affected. The jaundice may also be an early manifestation of cirrhosis of the liver. Of course, jaundice occurring in late syphilis is quite distinct from that described above. The intensity of syphilitic jaundice varies. Xanthopsia was observed in 3 cases. In many cases the jaundice increased when the anti-syphilitic treatment was commenced, and after reaching its acme rapidly disappeared. Hepatic enlargement was not a striking feature in the disease. In 22 out of 50 cases the jaundice was noted within six months after the infection. The syphilis in most of the cases was severe. In 50 cases cutaneous affections were present in 18, affections of the mucous membranes in 16, and both combined in 16. Marked glandular enlargement was present in 41 out of 50 cases. The author then gives the views of authorities on the nature of this form of jaundice. There are two chief views, one of which would attribute the jaundice to compression by enlarged glands in the portal fissure, and the other to a papular eruption in the intestinal tract similar to that seen on the skin. There is no morbid anatomy known in support of either of these theories.—*Brit. Med. Journal*.

Syphilitic Phlebitis.—R. HEUZARD (*Thèse de Paris*, No. 179, 1898) comes to the following conclusions: Syphilis can manifest itself in the veins. There are two forms of syphilitic phlebitis. The first form is acute or sub-acute, and corresponds to the secondary period of the disease. The efficacy of treatment proves that this form is really due to the syphilis and not to a secondary affection. The other form of syphilitic phlebitis is chronic, and corresponds to the tertiary period of the disease; it may be localized (gumma of a vein) or generalized (phlebosclerosis). The phlebitis of both secondary and tertiary syphilis affects the veins of the lower extremities by preference. In regard to diagnosis, other varieties of phlebitis and lymphangitis must be excluded. The prognosis is generally favorable, the average duration being two months. The treatment should be antisiphilitic mixed.—*Brit. Med. Journal*.

Life Expectancy in Syphilitics. JAMES NEVINS HYDE (*Medical Examiner*, April, 1898).

The author concludes an interesting paper as follows:

1. Inherited syphilis is one of the most fatal of all disorders affecting the human race, and under the most favorable circumstances, irrespective of abortion and miscarriage, nearly ninety per cent. of children born living subsequently die.
2. Acquired infantile syphilis is very rare, is an exceedingly manageable disease, and is one in which probably a large proportion of all infants survive.
3. Between 80 and 90 per cent. of all adult patients affected with acquired syphilis escape its gummatous complications.
4. The percentage of patients affected with gummatous syphilis who perish is not known, but one may doubt if it exceeds two per cent. of the from 10 to 15 per cent. of those who suffer from gummatous complications.
5. The expectancy of life is probably not affected by coincidence of syphilis with other diseases, and the prospect that the patient with acquired syphilis will ever suffer from either struma, tuberculosis or cancer is exceedingly small.
6. The natural evolution of acquired syphilis in untreated cases in the adult is not in the direction of a lethal issue, but rather in the line of phys-

ical degeneration and grave complications due to involvement of the nervous system and of the bones without affecting organs essential to the continuance of life.

7. It is unfair to charge an extra risk for the insurance of syphilitic applicants otherwise in sound health and insurable, as any assumed unfavorable longevity prospects due to the fact of infection are more than counterbalanced by the extreme improbability of death from either tuberculosis or cancer.

8. If what precedes has a fair foundation in fact, it follows that the syphilitic applicant for life insurance should be examined with a view not so much to his syphilitic history as to his condition with relation to all the other items making up a satisfactory risk. In other words, if he has a good family history, a sound constitution, excellent habits, and has reached, but not passed, a satisfactory age, his expectancy of life is probably that of other individuals in similar conditions, without added risk in consequence of his specific disorder.—*Medicine*, June, 1898.

GENITO-URINARY DISEASES.

The Anatomopathological Changes in the Penis in Aged People.

N. A. SHOURIGIN (*Wratch*, vol. xviii, No. 51, p. 1476, 1897).

The organs of twenty-one old people, between the ages of fifty-five and eighty-eight, were examined by the author. Subjects directly or indirectly affected with chronic diseases, as tuberculosis, syphilis, cirrhosis of the liver, hernia, and diseases of genito-urinary organs have been excluded from the author's investigations. The vesicles, nerves, nerve-endings, the corpora cavernosa, and mucous membrane were the parts examined. The large arteries presented a marked arteriosclerosis; in the small arteries endoperiarteritis was prevalent and the capillaries were empty, the walls being collapsed. The lumen of the veins was enlarged, owing to marked thinning of their muscular walls.

Atrophic changes in the nerves were only visible in subjects of advanced age, and this only in small trunks; the posterior nerve of the penis, outside of thickening of the sheath, did not present any changes. The vessels and capillaries of nerves were found changed in subjects below sixty years of age.

The cavernous spaces were either dilated or their walls collapsed; sometimes they were filled up with blood-corpuscles and sometimes the corpuscles were only present in small numbers. The walls of the spaces were thinned, composed of a small amount of smooth muscular fibers, connective tissue being increased. In three cases he examined the clitoris, where he found the changes marked to a less degree than in the penis of men of the same age. In order to ascertain the independence of the changes in the peripheral nerves from changes in the lumbar region of the cord he examined the latter in men and in two aged women. The alterations in the the lumbar region were very slight and could hardly be held responsible for the morbid conditions in the penis.

The Other Kidney in Contemplated Nephrectomy. DR. G. M. EDEBOHLS (*Annals of Surgery*, April, 1898).

Before removal of a kidney a knowledge of the presence and condition of the other kidney is important.

The presence of a kidney may be determined by palpation, but this is

unreliable, and its condition next to impossible to determine by this means alone.

Examination by the cystoscope and by catheterization of the ureters is a valuable means of determination, but cystoscopy may fail. It may not be possible to recognize the orifices of both ureters. Pus from affected kidney may appear in the urine only at irregular intervals. The author cites a case where one kidney was merely a pus-sac and yet at no time had pus appeared in the urine.

In renal hematuria mere inspection of the mouths of the ureters may prove misleading. Blood may be seen coming from one ureter, and yet we cannot be sure that it may not at times come also from the other kidney.

Catheterization of the ureters is a difficult procedure, even in the hands of experts, and may fail; then there are certain contraindications. In cases of pyuria where one kidney is affected, or where the bladder is affected, especially if the trouble is tuberculous there is danger of carrying infectious material into a sound ureter and thereby infecting the sound kidney. Moreover, in renal hematuria the catheterization itself may cause bleeding, even from the sound side, which may prove misleading.

Skiagraphy and the fluoroscope give some promise of assistance in the future, but at present the difficulties lie in the inability to interpret correctly what is seen.

The most important resource is *incision down to, delivery and examination of the opposite kidney, previous to completing an otherwise indicated nephrectomy.*

The author's procedure is as follows:

1. Patient is placed prone upon the table. The entire width of back is prepared aseptically.
2. An air-cushion is placed beneath the abdomen.
3. A straight incision is made from last rib to ilium, along outer border of erector spinæ muscle. If the space is narrow it may be made more oblique.
4. Carry incision through muscles and fascia till perirenal fat is reached. Avoid injuring iliogluteal nerve; if divided, the ends should be sutured at end of operation.
5. Cut through perirenal fat till kidney is reached, and separate kidney.
6. To facilitate delivery of kidney (*a*) if it be distended with fluid or pus, aspirate; (*b*) let assistant draw patient down on the table till the air-cushion lies beneath lower half of thorax; this will cause kidney to present at wound.
7. Palpation of kidney or any operative procedure necessary. If only a conservative operation is to be done, examination of other kidney is not necessary.
8. Unless drainage of interior of kidney be called for, or wound surfaces have been soiled by infectious matter, full closure of the wound without drainage should be the rule.

Anuria Lasting Four Days in a Woman Having One Kidney; Nephrotomy; Cure. Read before the Association Française d'Urologie, October 22, 1897. DRs. E. CHEVALIER and MAUCLAIRE (*Annals of Gyn. and Ped.*, p. 490, 1898).

The patient was a woman, thirty-six years old, who had suffered from pyonephrosis for several years for which the right kidney had been removed. She at first improved but one year after the operation began to have attacks of pain in the other kidney accompanied by nausea, vomiting, and oliguria. One year later she had a second attack, and eighteen months

later a third attack, and for the past year these attacks became more and more frequent until September 16, 1897, there was complete anuria with symptoms of anemia. Four days later nephrectomy was performed at the Necker Hospital.

The kidney was easily palpated forming a large tumor on the left side. The lumbar incision was made and a large uropyonephrotic pocket presented; the convex border of kidney was incised, the pocket evacuated of cloudy urine. No calculi found. The anterior lip of kidney was sutured to the wound and two large drainage-tubes inserted. On account of the patient's condition no attempt was made to examine the ureter and patient recovered with a lumbar fistula. As long as thorough drainage is maintained patient is in good condition. Catheterization of the ureter by the bladder with attempt to establish its function might perhaps be attempted later.

Case of Hydronephrosis from Stone Impacted in the Ureter of a Child. DR. J. W. PERKINS (*Annals of Surgery*, p. 643, 1898).

Child, ten years old, had had no previous illness, struck her right loin against a chair; had a sudden severe pain which passed off. Pain returned with vomiting and great suffering two hours later and could not be relieved. It was intermittent and spasmodic. Pulse 60; temperature 100.5° F. Abdomen tense and tender on right side. Passed a little urine which was normal. Diagnosis of renal colic. Several hours passed, she became pale, anxious, with cold extremities, prostration, pulse 120, temperature 102° F.; tumor increased in size.

Under ether a firm, tense tumor on right side extending two inches below umbilicus was made out; abdomen bulging.

An exploratory incision in right semilunar line, one and a half inches long, was made. The tumor presented, behind colon, thin-walled, tense, and passing toward kidney. The ureter was found to be dilated, and was traced to pelvic brim where stone was felt; it could not be pushed down, could be pushed up, when tumor began to collapse. Wound was closed temporarily and a lumbar incision made. Upper half of kidney found to be normal, lower portion expanded into a thin white-walled cyst. Kidney was incised in its normal position to the pelvis. Stone removed. Wound in kidney was closed by dissecting up perirenal fat with the finger and packing with gauze in front and behind, and then packing between these two tampons down to kidney wound.

Packing was left in place four days and removed under chloroform, and lumbar wound closed by two layers of silkworm gut, leaving a small gauze drain. Wound healed in ten days. Patient has remained well for three years.

The calculus was cylindrical in shape, and, unlike ordinary kidney stone, it seemed as if the cyst was congenital and contained the stone which became dislodged by the blow into the ureter.

Remarks on the Treatment of Stone in the Bladder When Associated with Hypertrophy of the Prostate. E. L. KEYES, M.D. (*Annals of Surg.*, p. 571, 1898).

The problem which the author seeks to elucidate is the best method of treating stone when associated with hypertrophied prostate, whether by litholapaxy or by cystotomy. An important consideration is whether the stone is (a) of uric acid, or oxalate formation, occurring independently of the hypertrophy; or is (b) of phosphatic formation, dependent upon the

catarrhal condition of the bladder, or (c) a phosphatic formation about a foreign body. The mere removal is not the only factor to be considered in the case. As a general rule he has come to regard litholapaxy as less applicable in these cases even if we can assure ourselves that we can remove every bit of stone by means of the evacuator, for the reason that the necessary instrumentation is apt to set up a reaction, rendering the patient's condition worse, making it necessary for the patient later to undergo lithotomy, not so much for the removal of fragments left behind as for relief of the aggravated catarrhal symptoms. Then, too, lithotomy, preferably by the suprapubic route, opens the door for the possible amelioration of the patient's condition by further operative attack upon the prostate. He thinks the conditions under (a) and (c), above, especially call for lithotomy. Where we have to deal with phosphatic concretions there are exceptions where the lithotrite may be used with advantage. If the patient is able to stand considerable instrumentation without much reaction, where the pouch behind the prostate is so shallow that the fragments can all be readily removed, and when the obstruction to the outflow is due to a symmetrically enlarged prostate, with an atonied bladder rather than to a bar, enlarged middle lobe, or horse-collar overgrowth.

He emphasizes what, although generally known, is frequently lost sight of: that it is not the mere voluminousness of the prostate which is at the bottom of the train of symptoms, but it is the enlarged third lobe, bar, horse-collar overgrowth, etc., independent of the mere size of the gland itself. And, if possible, this should be taken into consideration in sizing up a case, and if the door is opened by lithotomy some form of prostatectomy is in order in many cases.

He believes that complete enucleation of the prostate is losing ground, except in selected cases, orchidectomy is meeting with more and more opposition, and that the operation which promises the best results is the partial prostatectomy, lowering the floor of the urethra by gouging out the vesical prostatic orifice, cutting it well down and forcing it to heal by the prolonged wearing, during the granulating process, of a large perineal tube. His conclusions are:

1. When stone complicates enlarged prostate, if the conditions of the latter be such that were the stone absent no operation would be called for, then the whole question is to be solved by deciding whether the obstructive quality of the bar, the depth of the bas-fond, the irritability of the prostatic urethra, and its resentment of instrumental interference—whether any of these factors be sufficiently accentuated to make litholapaxy impossible or make it possible only at the expense of leaving the patient (as to his subjective symptoms) worse than before.

If such conditions do obtain, then the stone should be removed by the knife.

2. In short, the main matter is one of diagnosis by the searcher, the cystoscope, rectal touch, and the tentative testing of the prostatic urethra with instruments.

3. The mere size of the prostate is not a factor in the problem.

4. The size or position of the stone is not a factor except in the case of encysted stone, or one too large for the lithotrite to grasp, or in the case of a foreign body. The smallness alone of the stone is relatively an argument against litholapaxy, since the symptoms in such a condition must be ascribed rather to the prostate than to the foreign body.

5. If lithotomy be performed the suprapubic route should be elected, since this opens the door for more perfect work and allows the surgeon to remove obstructions, such as third lobe, interstitial growths, outstanding horse-collar enlargement, bar, and to lower the vesical end of the urethral

floor, thus accomplishing all that could be done by a more extensive prostatectomy without very seriously increasing the operative risk.

6. Finally, here, as elsewhere in surgery, the only safe, practical guide is surgical judgment, based upon diagnosis, guided by experience.

Bacteriological Investigations in Chronic Posterior Urethritis.

DR. J. COHN (*Centralblatt f. d. Krank. d. Harn-und Sexual-Org.*, p. 229, 1898).

The author reports a series of experiments, examining, in twelve cases of chronic posterior urethritis following gonorrhea, both by culture and by microscopic examination, the character of the micro-organisms invading these tissues. His method of obtaining the secretion of the posterior urethra uncontaminated with material or micro-organisms from the anterior stood the test in three normal, healthy men in whom the posterior urethra was proved to be absolutely aseptic and not invaded by germs. After washing out thoroughly the anterior urethra, a sterile metal endoscope is passed down to the bulb and the urethra dried at that point with sterile cotton swabs, the finger of the left hand is passed into the rectum and the prostate stroked from behind forward, an assistant steadying the endoscope. By this means secretion could often be seen exuding into the tube, this could be obtained by the sterile platinum loop or with sterile cotton swab, and the necessary culture media inoculated and the growths of bacteria studied.

In none of the twelve cases examined was the gonococcus found either by culture or by the microscope, all the cases showing a secondary infection of the posterior urethra and the prostatic glands. The staphylococcus albus was found in eleven of the cases, seven times alone, and four times associated with other bacteria. Streptococci were found three times, the bacteria coli once, rod-shaped bacteria once, and in two cases diplococci, which were not decolorized by Gram, and in other ways failed to show characteristics of the gonococcus.

Ultimate Results of Castration in Obstructive Hypertrophy of the Prostate. DR. L. S. PILCHER ("Editorial," *Annals of Surg.*, p. 684, 1898).

In June, 1896, the author reported the results of castration in eight cases and vasectomy in three cases. The results gave a favorable showing. To these he adds two more. The first case, seventy-two years old, had had a suprapubic cystotomy and vasectomy performed with temporary improvement. The suprapubic wound closed and urination seemed normal, obstructive symptoms again supervened and castration was done August 12, 1896. Recovery was rapid and at the end of four months urination was normal. The second case, a laborer, seventy-five years old, had had prostatic symptoms for two years followed by complete retention. Catheterization was easy of performance, but as the man lacked the proper surroundings for a successful catheter life, castration was done. Six weeks after operation urination was spontaneous and free; residual urine amounted to two ounces.

As in none of these cases, ten in all, in which castration was done were there any deaths, the author regards the mortality, 19.4 per cent., found by Cabot, not justly attributable to the operation; and thinks that in about twenty per cent. of the cases the conditions previous to the operation are such as to lead to the death of the patient in spite of the operation, though it may be accelerated by the operation. He thinks acute mania and dementia may be more fairly regarded as sequelæ to the operation. In one of the ten cases dementia developed, but this improved markedly as the improve-

ment in urination became established. The ultimate results in this case are unknown, as the patient passed from observation. One case died several months after the operation, of dysentery,

Of the other seven cases previously reported, one has lived three years, is well and mentally sound; urinates spontaneously, but has five ounces of residual urine. The second, two and a half years after operation, has ten ounces of residuum, but is well and active. The third, after two and a quarter years, has some residual urine and chronic cystitis, but has not begun to fail; has to use daily irrigation. The fourth case is well, his only symptom being flushes of heat. The remaining three cases have normal urination and lead an active life.

All of these cases show continued marked improvement in all their symptoms, and the author regards the operation as of great benefit.

Therapeutic Notes.

Therapeutics of Eneuresis.—HAND (*Pediatrics*, April 1, 1898), after thorough trial of routine remedies, by a mistake on the part of his patient's attendant, secured a cessation of the annoyance in two days. Pills according to the following formula were administered to the child, two and three-fourths years old, four times a day:

R	Ext. canab. ind.	. . . . .	gr. 1 / 8
	Hyoscyami	. . . . .	gr. 1 / 400
	Zinc. phosphid.	. . . . .	gr. 1 / 10.

Trichophytosis Treated by Turpentine and Iodin.—CAMPBELL (*Montreal Med. Journ.*, March, 1898). The method of treatment adopted was as follows: After thoroughly cleansing the scalp with water and green soap, the hair is carefully dried and oil of turpentine rubbed in, and immediately after, while the turpentine is still wet, tincture or liniment of iodine is painted on. In the course of a few days a somewhat thick, dark-brown, iodine-stained scale forms over the part, and it is necessary to remove this to carry on the treatment successfully. After considerable experience with various oils and soaps, I found that ordinary vaselin was the most effectual solvent here, as it is also in other scaly conditions of the scalp. Sometimes, in old, neglected cases, it is sometimes necessary to soak the hair over night with the vaselin, but even in these no difficulty is encountered in washing off the scales along with the vaselin in the morning. After removing the scales the turpentine and iodine is reapplied until such time as it is thought that the fungus may be destroyed. Then, after cleansing the scalp again, no further application is made if the broken hairs and other evidences of the disease have disappeared. The former site of the disease is carefully watched for several weeks, and, on the first appearance of scaliness or broken hairs, a second course of treatment similar to the first is carried out. The use of the microscope in detecting the very earliest reappearance of the fungus is imperative. As with other remedies, the treatment must be intermitted in case of inflammatory accidents, and soothing applications employed. The cases were relieved without return in from eight to thirty weeks. Twenty per cent. were due to the large-spore, but a majority to the small-spore, trichophyton.

Nosophen.—OHMANN-DUMESNIL (*St. Louis Med. and Surg. Journal*, vol. lxxiv, June, 1898), after quoting from recent works to show that the cure of uncomplicated chancroid requires from to six weeks, gives a method which has served him well and precludes the necessity of cauterization. It is

as follows: When the chancroid is seen it is washed with lukewarm water and carefully dried with absorbent cotton; after this, hydrozone is liberally applied to destroy any pus which may remain. This being done, nosophen powder is then placed over the site of the lesion. This operation is to be repeated twice daily. In a few days the site of the ulcer is dry and the case is cured.

Treatment of Lupus Vulgaris by Excision (*St. Thomas' Hospital Reports*, vol. xxv, 1897).—WILLIAM ANDERSON of St. Thomas' Hospital, London, who has had a large experience in the treatment of lupus, has lately reviewed the subject, and, after an experience of *excision* during the past fifteen years, gives it as his opinion that, if carried out in the light of modern science in suitable cases, it should be not a final resort, but both the alpha and the omega of the surgeon. For patches not exceeding a crown-piece in size he has found excision by far the most successful, the most speedy, the most thorough, and in its results the most permanent and slightly of all plans. The wound may be treated in three different ways, according to circumstances. If small and conveniently situated, it may be closed immediately by suture, leaving a linear cicatrix; if large, or otherwise unsuitable for closure, it may be covered either immediately or after a short interval with an epidermic graft, and the healing process in any case is concluded within a period of two or three weeks. On the neck, limbs, and trunk, and occasionally on the face, the raw surface may be covered in partially or completely by gliding portions of detached integument from an adjacent part, or other resources of plastic surgery may be employed; but this is not often necessary. Recurrence *in situ* is exceptional. The author has excised patches covering nearly the whole of the cheek, and sometimes extending to the submaxillary region, and even the lower portion of the opposite cheek, completing the operation at a single sitting. Where such extensive operations are undesirable he has adopted a plan of excising the growing borders of the disease, vigorously curetting the rest, covering the whole with salicylic ointment (twenty to thirty grains to the one ounce of vaseline) until cicatrization is well started, and then using epidermic grafts, if necessary, though it is not often the case. Anderson has removed at a single sitting as many as thirty-five different patches, of sizes ranging between a threepenny-piece and that of a crown.

The line of incision is placed (where possible) a third to a half of an inch from the most rapidly spreading edge, but may approach to within a quarter of an inch of the more quiescent parts of the border. On the trunk or limbs the section may be carried down to the deep fascia if the subcutaneous tissue is scanty, or well into a thick layer of fat. On the face the muscles and branches of the facial nerve must be left unexposed, and the depth within these limits must be adjusted to the degree of infiltration of the tissues by the new growth, taking care to remove the whole of the diseased and a certain portion of the apparently healthy structure beneath.—*Treatment*, vol. i, No. 23.

Treatment of "Seborrhea" of the Scalp.—BAYET (*Gaz. Hebdomadaire de Med. et de Chir.*, January 28, 1898) has simplified Lassar's treatment in the following manner:

1. Wash the head for ten minutes with tar soap.
2. Remove the soap and make ablution with sublimate solution (0.5 per cent.).

1. Dry and rub the scalp with a five-per-cent. naphthol ointment. Remove excess. In the beginning this should be done every day, then once or twice a week.

Editorial Notes.

INTERNATIONAL DERMATOLOGICAL CONGRESS.—Dr. Geo. T. Elliot of New York has been named Corresponding Secretary for the United States at the Congress to be held in Paris in 1900.

PROFESSOR PICK'S ANNIVERSARY.—Professor Pick of Prague, editor of the *Archiv für Dermatologie und Syphilis*, on the first week in May celebrated the twenty-fifth anniversary of his elevation to the chair of Dermatology in the University of his native city. His American colleagues congratulate him on his long term of useful service as well as on the splendid "Fest-Schrift" which signals the occasion.

DERMATOLOGICAL SECTION OF THE BRITISH MEDICAL ASSOCIATION.—The Association meets in Edinburgh, July 26 to 29, 1898. This is the first dermatological meeting of any kind in Scotland. The arrangements are as follows:

On Wednesday, after the President has delivered his introductory remarks, the Section will adjourn to the Royal Infirmary, where a Clinical Meeting for the exhibition of patients will be held, and the cases informally discussed. On Thursday the subject for discussion will be "The Nature and Treatment of Lupus Erythematosus." To be opened by Professor Boeck, Christiana, and Dr. Unna, Hamburg. On Friday the discussion will be on "What Are We to Understand by Eczema?" To be opened by Mr. Malcolm Morris, London, and Dr. Wallace Beatty, Dublin.

A NOTICE.—It is contrary to the custom of the JOURNAL to take its business into its reading pages, but the recent insolent effort of an agency of this city in the interests of a much-advertised proprietary preparation to demonstrate the venality of the American medical press cannot be permitted to go unnoticed. This journal's position requires no definition—the advertisement was unqualifiedly rejected. It was accepted, however, by a number of papers whose names have been widely circulated by this agency in violation of every tenet of decency in business dealings. The murder being out, and the impossibility of adequate explanation recognized, the names of the journals accepting the advertisement will be removed from our exchange-list. There is no other method by which disapproval can be so effectually demonstrated. We are pleased to note that the *Journal of the American Medical Association* has forced a retraction from the organ of this agency, of the statement that it had accepted the proposition.

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Original Communications.

ON THE INDICATIONS FOR OPERATION IN TUBERCULOSIS OF THE KIDNEY, AND THE CHOICE OF OPERATIVE METHOD.¹

By ROSWELL PARK, A.M., M.D.,
Professor of Surgery, Med. Dept., Univ. of Buffalo.

FOR the writer, so soon as an operation for nephrophthisis is considered necessary, the first step to be taken is the establishment of the diagnosis. When once the conclusion is reached that a kidney is the site of a tuberculous lesion, the sooner that organ is removed the better, providing only and always that there be in the other kidney or elsewhere, no lesion of a similar character, which would serve as a contraindication.

It is possible only in exceptional instances, to make a diagnosis so early that one can fully rely upon non-surgical measures, meaning thereby the use of drugs and perhaps of tuberculin. It is also most exceptional to meet with a kidney where the lesion is so isolated that one can safely remove but a portion of the organ.

The question as to the general propriety of operation must be first passed upon; then an exact diagnosis should be made, if possible, as to whether one kidney is involved or both. If it can be clearly established that both organs are affected with this disease, the removal of one will be of little benefit, but often rather a detriment. We have then, first, to determine whether there is any serious tubercular disease elsewhere. Especially is this true of lesions in inaccessible parts of the body, such as the lungs, mesentery, intestines, etc.

¹ See discussion, page 377.

It is not necessarily so true of lesions in parts which may be legitimately attacked, as, for instance, lymph-nodes near the surface, the long bones, the joints, and the skin. When it can be positively established that there is some disease of the prostate, seminal vesicles, and, perhaps, of the testicle, the operation is of doubtful propriety, though sometimes with regard to the latter we may apply the same rule as pertains to lesions of other accessible parts of the body. When the ovaries are diseased they may possibly be removed at the same time as the kidney; when other deep organs are involved operation is most inexpedient. When it is the peritoneum which is at fault, we may bear in mind the advantage often accruing from opening this cavity and perhaps may decide to remove the kidney by the peritoneal route.

Acute tubercular lesions of the kidney come under the observation of the physician rather than of the surgeon, at least at first, and require the former's skill rather than that of the latter; moreover, they are rarely of a character from which any benefit by surgical interference can be obtained. Possibly, though, in a few such cases, as in certain chronic cases, the operation of splitting the capsule might at least be seriously considered in order thereby to relax tension, and thus prevent necrosis through pressure. But a case must be rare in which this measure can be seriously suggested.

Unless there be some good reason for delay the operation is certainly called for so soon as the diagnosis is established. Exploration once seriously contemplated should not be delayed unless for good reasons. When undertaken early, by a capable person, it is as such almost certainly harmless. Operations upon the kidneys are of gravity just in proportion to the precariousness of the condition which necessitates them, and should always be so regarded and so represented.

For the most part it is the slow diseases of the kidney which need the attention of the surgeon. The reports of the advantage which various surgeons have derived from a cystoscopic picture of the ureteral opening on the involved side are widely variant. They would indicate that this picture may totally change from its previous appearance after removal of the tuberculous kidney, which would also indicate that when the operation is performed early the involvement of the bladder may spontaneously subside. While the various pathological, and particularly the tubercular conditions of the kidney are *per se* of great interest, when we look upon this organ from the surgeon's standpoint a tuberculous infiltration of even a portion is to be regarded as a serious menace to health and life, and certainly an or-

gan so diseased is best removed. Moreover, when the disease has been of long duration, the ureter is usually also involved and the surgical indication for its removal is plain.

The advantage to the patient of the removal of a portion of the organ is not always certain. To remove a kidney ordinarily is easy and is not a tedious operation, but when it comes to the dissection and separation of the ureter, when its removal is indicated, the measure seriously prolongs the operation, sometimes so much so as to endanger life. What it is best to do, therefore, under these circumstances should really be left to the decision of the surgeon at the time of the operation rather than be carried out upon any preconceived plan. I have repeatedly endeavored to fulfil at least a portion of the indication in these cases, and have thrown down a few drops of fifty-per-cent. solution of zinc chlorid along the ureter by injecting it with a syringe, or have passed along the ureter a probe, upon whose tip was melted some silver nitrate. I think either of these measures better than to do nothing, and much less serious than the removal of this tube.

Partial nephrectomy would seem to be indicated when certain kidneys are examined during the progress of an operation, but such examination must necessarily be hurried and incomplete. The percentage of cases in which the kidney is the site of a single or isolated tubercular lesion is exceedingly small, as compared with that where the lesions are multiple and disseminated. I have not been able to gather exact or comprehensive statistics upon this question, and the wisdom of the procedure must be decided according to the judgment and experience of the surgeon, and for each particular case. Partial nephrectomy is at least, therefore, contraindicated in theory, although one must confess that it is sometimes apparently successful in practice. The terminal circulation of the kidney corresponds very much to that of the brain. Instances are rare of single tubercular lesions in either of these parts of the body, and, therefore, I must confess to some hesitancy in attacking tubercular lesions in either locality by any incomplete method, because I doubt the possibility of complete eradication of the disease. In making this statement I may be accused of inconsistency in consideration of what I have already said concerning the ureter, for there would be the same danger in leaving the diseased ureter after removing a diseased kidney, though in minor degree, as in leaving a portion of the kidney itself, although I might possibly advise leaving it when actuated by considerations concerning the danger of its removal. There is, however, an anatomical separation between the kidney and ureter, which furnishes

a natural stopping-place, which, of course, cannot be stated of the kidney itself.

One of the expedients recommended in these cases has been lumbar drainage, as, for instance, in hydronephrosis from obstruction of the ureter by tubercular débris, in order to have such urine as may form escape through a direct opening rather than through the natural outlet. This seems to me a great mistake. The risk of infection of the wound and dissemination of the disease is very great, and should not be disregarded.

There is certainly reason to think that after early removal of a tuberculous kidney, that is, removal of the one in which disease is not seriously advanced, the progress of infection of the balance of the genito-urinary tract may at least be delayed, and sometimes apparently checked. This is in accordance with the experience of a number of competent observers. For my own part, I have repeatedly seen infiltration of the tissues surrounding a kidney which was itself the site of advanced tubercular disease, and which infiltration seemed of the same character, nevertheless completely subside, or at least apparently disappear after removal of that organ.

The scope of this paper does not include the consideration of diagnosis, which, nevertheless, is most important. Digressing for a moment from its purpose, let me simply say that in my opinion the most important and diagnostic features in this regard are thamuria, the discovery of bacilli in the urine, and the picture of the ureteral openings revealed by the cystoscope. Of still greater value, when it is possible to practise it, is the collection and separation of urine from each kidney by means of the ureteral catheter. I think it well, also, to emphasize the fact that thamuria does not necessarily mean that the bladder is involved; at any rate, not so seriously but that the involvement may disappear after removal of the affected kidney.

Coming now to the selection of the operation, I feel that not much needs to be said in this connection and to this audience. First of all, the surgeon has his choice between the intra- and the extra-peritoneal operations. The former have been divided into the transmesenteric and the transmesocolic. The intraperitoneal route will be selected probably only in the presence of certain specific indications; it will often be called for in the case of little children, it being the only method by which an enlarged kidney can be safely removed in such instances. In a case which I reported in the *Trans. Am. Surg. Assn.* for 1886 (which was then the youngest case in which nephrectomy had ever been successful, the child being twenty-three months of age at the time) the cystic kidney, for which the

operation was done, was so large that the child was practically carrying it in a sort of suspensory apron swung from the shoulders. Often where the disease is much less prominent than in this case, the abdominal or transperitoneal route would be the only one feasible. Whether the operator shall go through the mesentery or the mesocolon is a matter of minor importance and again must be decided entirely according to the emplacement of the diseased organ.

Of the extraperitoneal methods, most all operators now select the oblique in preference to the lumbar incision, and for reasons which are quite obvious. Of a total of one hundred nephrectomies probably between ninety and ninety-five would be done by the oblique incision, with which König's name is so commonly connected. The beauty of this method is the extent to which the incision can be carried, since, if the size of the mass require it, it may be extended to the external border of the rectus on the affected side. For ease and convenience in almost every respect it certainly takes precedence over every other method, save in the rare instances in which the kidney is easily shelled out after opening the abdomen.

Instances occasionally occur in which it will be of advantage to make the operation *a deux temps*; as, for instance, the first part of the procedure being the exploratory one, after concluding which the wound is packed with gauze, permitting access a few days or weeks later when the kidney itself may be enucleated.

As illustrating some of the points connected with this paper, I would briefly relate the details of two very recent experiences. One pertains to a woman some fifty years of age, from whom I five years ago removed a tubercular kidney. I had but little doubt that the ureter was involved at the time, yet such was her condition that I dared not remove it. She made a slow but perfectly satisfactory progress and remained well until quite recently, when a large abscess formed in the site of the removed kidney and endeavored to empty itself by a small sinus through the old wound. Last month I laid this sinus open and made a counter-opening, passing a large drain through from one to the other. Fortunately, I had well cleaned out the old cavity before making the counter-opening, for in so doing I injured the diaphragm and there occurred free passage of air between the outside and the inside of the chest. This opening I tightly packed with gauze and she has experienced no inconvenience nor trouble of any kind; moreover, the cavity is now nearly closed.

Again, another case, a man of thirty-five, who was operated upon some weeks ago. He had previously had three operations for tuberculosis of the genito-urinary tract; his bladder had been drained at

one time, one testicle had been removed and the other had been cut. Tubercle bacilli were present in his urine, and he complained of constant and severe distress in the region of the left kidney. His condition was very serious. I knew the left kidney to be involved and feared mainly for the right. I anesthetized him, opened the bladder by median section and catheterized the left ureter by the sense of touch. From this ureter came purulent and fetid urine.

After thus exploring this ureter I at once placed him in proper position and proceeded to remove the left kidney. This I found the seat of extensive and multiple trouble, it being studded with cold abscesses. In this instance I would certainly have removed the ureter but for two considerations—the condition of the patient at the close of this prolonged operation and the anatomical difficulty attending the act, since he was exceedingly large and fleshy. In fact, I felt that it would be impossible to remove his ureter safely under any conditions. The man has slowly recovered and his condition now is quite satisfactory.

A MODIFICATION OF THE TECHNIC OF THE OPERATION OF PERINEAL SECTION WITH A VIEW TO SIMPLIFY THE PROCESS. NEW INSTRUMENTS DESCRIBED. REPORT OF ONE HUNDRED AND SIXTEEN CASES.

By ORVILLE HORWITZ, B.S., M.D.,

Professor of Genito-Urinary Diseases Jefferson Medical College; Surgeon to Philadelphia Hospital; State Hospital for the Insane; Consulting Surgeon Hayes Mechanic's Home, etc.

WHEN attempting to perform the operation of perineal section for the relief of a tight stricture of the membranous portion of the urethra, the utmost patience is often needed to insure a successful result.

I have more than once been present when the surgeon has hunted for well nigh an hour before discovering the channel through which ran the strictured portion of the canal. On one occasion when I was an onlooker the manipulator, after a prolonged effort to reach the bladder, was compelled to abandon the attempt, and gave over the operation.

With two of my own cases where a rupture of the urethra, with extravasation of urine had taken place, the condition of the patient was so perilous that it became necessary to resort to retrograde cathe-

terization rather than prolong anesthesia and add to the existing shock.

When an instrument larger than a filiform bougie can be passed through a stricture, situated in the membranous portion of the urethra, the operation of perineal section is usually a very easy task.

In this paper I shall confine myself to the consideration of but two conditions: one where the membranous urethra is the seat of stricture of so small caliber that a filiform bougie can only be passed; the other where the passage of any instrument is impossible, and the bladder is to be reached without the aid of a guide.

The rapid recovery of the patient after an operation depends in a great measure upon the preparatory treatment. When time will allow properly to prepare the patient, absolute rest in bed for from four to six days before the operation should be insisted upon; the diet should be restricted to plain, easily digested food, and at the same time, the bowels should be carefully regulated.

A careful bacteriological, microscopical, and chemical examination of the urine should be made, that the surgeon may be enabled to judge of the condition of the bladder and kidneys. It will be found that where there is a tight stricture of long standing that cystitis is present in a large majority of the cases, and that kidney complications are not at all infrequent.

It is likewise important to ascertain the amount of urea daily secreted; except in cases of emergency, if the percentage of urea is below the normal standard, or the quantity of urine voided is less in amount than it should be, the operation of perineal section should not be advised; it is preferable to keep the patient under treatment until a healthy condition obtains.

When chronic disease of the bladder and kidney is present the best results are procured from the employment of chloroform and oxygen combined as an anesthetic.

Should a chronic inflammatory condition of the urethra exist behind the stricture, associated, as is frequently the case, with cystitis, and it is impossible, owing to the tightness of the contraction to attempt to produce local antiseptic results by means of the medicated solutions usually employed, much can be accomplished by the administration of utropin in 5-grain doses, administered four times daily, combined with a glass of Poland water. This remedy should be administered for at least four days before the operation is performed, and should be resumed as soon after the operation as the condition of the patient will permit.

The canal should be irrigated, twice daily, for several days prior

Perineal Staff.

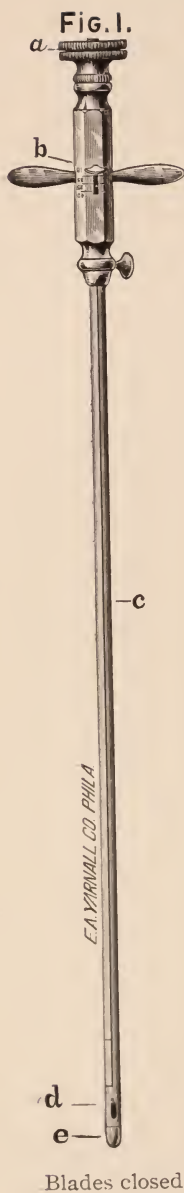
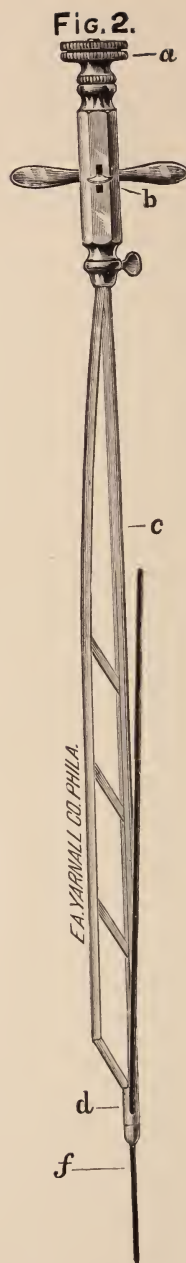
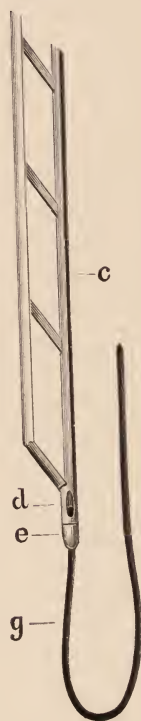


Fig. 3.



to the commencement of the proceedings, with a warm solution of boric acid, and immediately prior to the operation a warm solution of bichlorid of mercury not stronger than 1-20,000 should be thrown into the urethra.

The day preceding the operation the bowels should be freely opened by means of a saline cathartic; 10 grains of quinine should be given at bed time and a hypodermic of a quarter of a grain of morphia together with a twentieth of strychnia should be administered one hour before the anesthetic. An enema should always be administered previous to the patients being brought into the operating-room.

The operation for perineal section, now to be considered, is a modification of that known as the "Wheelhouse," and is, I hope, a simplification of that procedure, by the substitution of a perineal staff of my own contrivance. The technic is entirely changed.

It will be observed that Fig. 1 consists of two blades (*c*) in close approximation, which together form a smooth staff, with a thumb-screw (*a*) at one end by means of which the blades may be readily separated. It works upon the same principle as the Otis Dilating Urethrotome; an instrument familiar to all. The distal end of the staff terminates in a rounded nut (*e*), which can be removed, and replaced by a whip filiform as is shown in Fig. 3.

By examining Fig. 1 (*d*) an opening in the nut at the end of the staff will be observed, which leads into a tunnel through which an ordinary whalebone filiform can be passed, Fig. 2 (*f*). The filiform is employed when it is not possible to insinuate the whip bougie; it being frequently the case that the former instrument can be introduced when the passage of the latter cannot be achieved; so that it will be observed the staff can be used with either an ordinary filiform or with a whip bougie, or even without a guide.

When it is possible to introduce the whip bougie through the stricture, it is to be fastened to the perineal staff in the manner shown in Fig. 3 (*b*). The blades of the instrument are closed, as in Fig. 1, and the staff is passed into the urethra until arrested by coming in contact with the shoulder of the stricture. The whip bougie being pushed in front of the staff, reaches the bladder, and curls up, and when the urethra is opened serves as a guide to the operator, as it is inserted directly through the stricture.

In case the whip bougie cannot be passed through the stricture, a whalebone filiform is to be inserted; the tunnel at the end of the staff is threaded over the filiform, and introduced into the urethra until arrested at the contracted portion of the canal. An assistant

turns the thumb-screw (Fig. 1), and separates the blade as shown by Fig. 2. The amount of separation is noted by an indicator on the handle of the staff, Fig. 1 (*b*).

When the blades are separated the urethra in front of the stricture is not only fixed, but is made prominent, and the operator, after making the incision through the skin, can readily open the urethra with absolute precision and ease. The separation of the blades of the staff fixes the urethra, and serves to hold it steadily.

When the staff is in position, with the blades expanded, the location of the urethra can be readily detected by palpation over the tissue of perineum.

The objection to employing the staff of Mr. Wheelhouse is that the urethra remains movable, and that, if an effort be made to open the canal the tissues are liable to roll from under the edge of the knife, making an incision difficult, and at the same time misleading the operator. When the filiform is employed in conjunction with my staff, instead of the whip bougie, the urethra can be readily detected, and when incised it will be found passing through the stricture, and can be traced without difficulty to the entrance of the bladder.

If the stricture be impassible and the operation has been performed without a guide, the staff is to be passed with blades closed (Fig. 1) down to the seat of the contraction; when this point is reached the blades are to be separated; the urethra fixed, and made prominent when the urethra can be opened in front of the stricture by a few touches of the knife.

The advantages of the employment of the perineal staff having been demonstrated, a few points touching the modification of the technique may now be considered.

When the patient has been placed on the operating-table, an effort is to be made to introduce the whip bougie; should this fail, a filiform is inserted, over which is threaded the perineal staff, which is passed down to the strictured portion of the urethra, the blades are then separated and the instrument given to an assistant to hold, who at the same time lifts the scrotum well out of the way. The individual is then placed in the lithotomy position; the buttocks projecting slightly beyond the edge of the table, and raised by means of a pillow, so that the perineum may be on the same plane as the eye of the operator, when seated opposite the patient.

Better access to the perineum can be procured by having an assistant for each limb; the leg to be firmly flexed on the thigh, and the thigh upon the abdomen. The stirrup or crutch apparatus, fre-

quently employed to hold the limb in position, is not recommended.

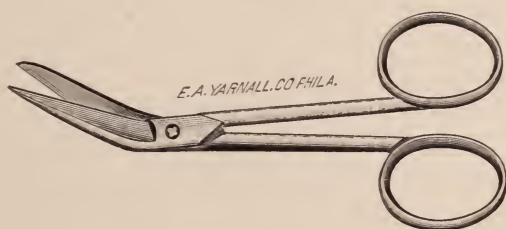
It is hardly necessary to remark that a good light is absolutely necessary for the successful performance of the operation.

Everything being in readiness, the operation is commenced by making a free incision through the skin, extending from just below the junction of the scrotum with the perineum to the anterior border of the sphincter ani.

Great care should be taken by the operator to make an incision sufficiently free to find the urethra readily, and at the same time to control the hemorrhage easily.

The layer of superficial fascia being brought into view it is to be cut through and the deep layer disclosed, when the tissue overlaying the urethra is divided by aid of the angular scissors.

FIG. 4.



Angular Scissors.

As each structure is divided, it is to be grasped and steadied on either side of the perineal raphe by means of a pair of rat-teeth forceps, while the operator divides with the scissors the stratum overlying the urethra, directly in the middle line.

I have frequently employed the scissors instead of the knife; the advantage of the former over the latter method being that the incision is clean cut, with a greater likelihood of keeping directly on the line of the raphe. When the knife is employed the tissue of the perineum is liable to roll from side to side, from under the edge of the blade, the operator getting either to right or left of the urethra, and running the risk of losing his bearings.

The accelerator urinæ muscle, which is the true anatomical guide to the urethra, is discovered on dividing the deep fascia. This muscle consists of two symmetrical halves united along the middle line of the perineum by a tendonous raphe which serves to mark the exact position of the urethra. The fibers of the accelerator urina diverge on each side of the raphe like a plume. The middle fibers of this muscle cover the bulbous portion of the urethra, while the

posterior fibers are attached to the central tendon of the perineum, and are lost on the anterior surface of the triangular ligament.

It is to be borne in mind that the middle fibers of the muscle cover the bulbous portion of the canal, and that by tracing these backward to their attachment to the central tendon of the perineum, the exact position of the membranous urethra can be readily located, as it lies directly beneath.

The muscle is an unfailing guide to the position of the urethra, lying as it does directly behind it, and in fact being the only real landmark, which serves to point out the true position of the canal. This may not be an original observation, but I am not aware that I have hitherto seen it in any work on surgical anatomy.

As soon as the accelerator urinæ is exposed at the bottom of the incision, the position of the bulbous and membranous portions of the urethra is assured.

In cases of rupture of the urethra, with extensive infiltration of urine, where the perineum is riddled with sinuses, or when it is greatly thickened by reason of the presence of a large amount of inflammatory tissue, it will be difficult to distinguish the accelerator urinæ; when such is the condition, the operator must depend upon the perineal staff to enable him to locate the position of the canal.

By means of the scissors the tendonous raphe of the muscle is to be divided, bringing into view the urethra, which, by aid of the perineal staff, is fixed and distended. A tenaculum is then to be passed on each side of the staff into the urethra, and placed in the hands of the assistants who have charge of the legs, with directions to make gentle traction; this brings the urethra prominently into the wound, where it can be readily incised in front of the stricture, when the staff is exposed *in situ*.

The edges of the incised urethra should then be seized on each side by means of the hemostatic forceps, and given into the hands of an assistant, and the tenaculi removed.

The upper angle of the urethra is likewise to be grasped by the forceps, which the surgeon holds in his left hand, thus making traction on three portions of the urethral incision, and pulling the strictured surface of the canal so that it is presented directly in front of the operator. The Wheelhouse probe is then utilized to search for the whalebone filiform, or the whip bougie, as may have been employed.

As soon as the mouth of the stricture is perceived, the probe is to be inserted by side of the filiform, parallel to the perineal raphe, carried along the contracted portion of the urethra until the point

reaches the floor of the perineum just above the rectum. Great care must be observed not to use force.

The index-finger of the left hand inserted into the rectum serves as a guide, the probe being brought from the vertical to the horizontal position, and made to pass directly through the prostatic urethra into the bladder.

The success of this step of the operation depends, after having located the opening of the stricture, on first starting the probe parallel with the perineal raphe, carrying it directly down until it is in close proximity to the rectum, and then bringing the handle of the probe into a horizontal position, pressing it upward and backward into the bladder, so that the instrument follows the natural curve of the urethra. In some instances it will be found after the instrument has been inserted into the upper portion of the membranous urethra that it is impossible to make it describe the curve naturally assumed by this portion of the canal; this is due to the fact that the point of the instrument catches into the folds of the constricted urethra, but this difficulty can be readily overcome by the operator inserting the index-finger of the left hand into the rectum, and, at the same time, dissecting the tissues of the perineum, including the strictured portion of the floor of the urethra directly down upon the probe; the handle of the instrument can then be readily depressed and carried into the bladder.

When the probe has entered the bladder it is to be handed to an assistant with directions to grasp it firmly.

With the index-finger of the left hand in the rectum as a guide, and in order to see that the bowel is not injured, a probe-pointed bistoury is to be passed along the groove on the under surface of the staff, so as to divide the stricture throughout its entire length, after which a Teal gorget is to be passed beside the probe, until the point of the instrument enters the bladder; that this has been accomplished is known by the appearance of urine along the instrument when the bladder is reached. The probe is to be then removed, and a soft rubber catheter passed through the penile urethra until the point of the instrument appears in the perineal opening, when it is seized by the surgeon between his finger and thumb, pulled well into the incision and made to pass along the gorget until it reaches the bladder, when the urethra, perineal wound, and bladder are to be irrigated with a solution of 1-20,000 bichlorid of mercury.

In cases where neither a filiform nor whip bougie can be made to pass the stricture, a precisely similar method to that just described should be pursued. The dilatation and fixation of the urethra in

front of the stricture by the employment of the perineal staff will prevent any trouble in opening the urethra. The main difficulty is experienced in finding the proximal end of the canal and in tracing the small channel through the stricture back to the bladder; as a rule, this can be readily accomplished by following the method suggested in passing the Wheelhouse probe. The lower portion of the membranous urethra is in close proximity to the rectum, so that when the index-finger of the left hand is in the bowel, and the operator is passing a probe with the right hand, if the point of the instrument deviate either to the left or to the right of the median line, and if it be not in the vicinity of the rectum, he may be well nigh certain that in all probability he has established a false passage.

The close relation between the membranous portion of the urethra and rectum should always be borne in mind when attempting to pass the probe. In some cases, owing to the infiltration of densely compact tissue, it is almost impossible, after the most careful search, to find the proximal end of the urethra. Should the operator be unable to discover the opening to the strictured portion of the canal, a modified Cock's operation may be performed. I have resorted to this expedient several times with success.

If the patient be in poor physical condition, suffering from chronic disease of the kidney, or if he has sustained a rupture of the urethra, with infiltration of urine, valuable time is not to be wasted in attempting to reach the bladder through the perineum; the operator should proceed at once to perform retrograde catheterization by means of suprapubic cystotomy, which will very materially shorten the duration of the operation and at the same time avert shock. In these cases where I have performed this operation, uninterrupted recovery has been the result.

Hemorrhage following perineal section is frequently profuse, generally exuding from the vicinity of the bulb, the incised ends of the urethra, or from the plexus of veins in the neighborhood of the prostate gland. It need not, however, be a source of anxiety, for as a general rule, it can be readily controlled by packing the wound firmly with iodoform gauze; carrying it along side of the catheter, up to the neck of the bladder; especially should this be done when it is found that the blood proceeds from the deeper portions of the wound.

When the packing does not control the hemorrhage, is deep-seated, and the application of a ligature difficult, the wound should be thoroughly separated by means of a blunt retractor, and the

bleeding vessel seized by a hemostatic forceps, which should remain *in situ* for three or four days.

Five or six hemostatic forceps have been allowed to remain in a perineal wound for four or five days after an operation without producing untoward results.

This method of dealing with hemorrhage not only prevents the loss of a large quantity of blood, but very materially shortens the duration of the operation. If the hemorrhage proceeds from the bulbous portion of the canal it should be exposed by a free incision, and the bleeding vessel ligated or controlled by the use of the hemostatic forceps. The urethra should be incised as freely as necessary; in several instances I have opened the canal from the bulb to the prostate gland.

Applying a suture to an incision of the urethra is not recommended; its results being very unsatisfactory; in suitable cases it is preferable to close a perineal wound by means of a few silkworm-gut sutures, starting from the skin on one side of the incision in the perineum and including all the structures together with the urethra; a small opening at the lower angle of the wound is to be maintained through which a drainage-tube is to be inserted, to be removed on the third day. The opening left by the drainage-tube is to be closed by means of a retention suture inserted at the time of the operation.

Where there has been infiltration of urine into the perineum, a perineal abscess of long standing, sinuses, or a great amount of nodular tissue due to chronic inflammation, no effort should be made to close the wound in the perineum.

Gauze packed into the perineal wound for the purpose of controlling the hemorrhage, or with the object of effecting drainage should be removed by the end of the third day and not replaced.

The patient should be instructed to lie on his back, and to keep his legs as close together as possible, so as to allow the edges of the wound to remain in apposition. This method of treatment is indubitably conducive to rapid healing of the wound, while at the same time it very materially lessens the tendency to the formation of perineal fistula. Packing a perineal wound for a lengthened period, after a perineal section, is undoubtedly a frequent cause of delay in healing, by the formation of a fistulous opening.

The rubber catheter should be left *in situ* for a period of from four to five days after the operation.

The end of the catheter is to be connected with a rubber tube leading to a vessel under the bed, by means of which the urine is drained from the bladder, and the patient kept dry and clean; at the

end of the fifth day the catheter is to be removed, and either disinfected or replaced by a new one.

This mode of treatment is to be continued until the new urethra is completely formed, when the urine ceases to dribble from the perineal opening, when the patient makes an effort at micturition.

By the employment of continuous drainage, infection of the wound is prevented, the tendency to urethral fever and sepsis is lessened, prompt healing of the wound is assured, and liability to urethral fistula minimized.

The urethra and bladder should be daily irrigated with a warm solution of boric acid.

A record of 116 operations exhibits the following points of interest:

Of this number 5 died; 2 from uremia, developing between the thirteenth and fifteenth day after the operation; 1 from abscess of the kidney; 1 from suppression of urine, and 1 from sepsis.

In 21 cases there was rupture of the urethra, associated with extravasation of urine, due to stricture.

In 12 cases the stricture was of traumatic origin, and impassable.

In 4 cases there was perineal abscess, with retention of urine.

In 13 cases there was one or more fistulous openings leading to the urethra.

In 7 cases the perineum was enormously thickened, resulting from inflammatory action, destroying the landmarks and twisting the urethra from its normal position.

In 36 cases the strictures were impassible, and perineal section was necessarily performed without a guide.

In 5 cases perineal section was performed; the whip bougie serving as a guide.

In 74 cases the filiform bougie acted as the guide.

In 4 cases secondary hemorrhage occurred between the third and ninth day.

In 2 cases sepsis was evolved; one patient died, the other developed a non-suppurative arthritis of the right hip, followed by permanent ankylosis, with the formation of subcutaneous abscesses in various portions of the body. He was four months convalescing, but at the present time enjoys good health.

Two cases developed suppression of urine from which 1 died.

Eight cases developed uremia in varying degrees of severity, from which two died.

Two cases developed phlebitis of the right femoral vein, both recovered.

One case developed intestinal obstruction five days after the operation. Very ill for a few hours and finally recovered.

In 4 cases there were chills, followed by urethral fever, lasting for three or four days after the operation. One of these died from suppression of urine.

So that out of 116 operations 28 cases developed cases complications of one form or another after the operation; the remainder made uneventful recoveries. The average length of time required to perform the operation by means of the staff, and the modification of the suggested technic, was from fifteen to forty minutes.

CONDITIONS COMPLICATING THE CASES AT TIME OF OPERATION.

Thirty-five patients suffered from a more or less severe form of chronic cystitis.

In 8 cases there were kidney complications.

In 2 cases there was organic heart disease.

In 4 cases inguinal hernia was present.

In 1 case there was hydrocele.

Five cases were subjects of tertiary syphilis.

One patient suffered from a stricture of the rectum due to syphilis, with an impassable stricture of the urethra due to gonorrhea; proctotomy was performed, followed by perineal section, after recovery from the first operation had taken place.

One patient had an ankylosis of the left hip, following coxalgia, rendering perineal section more difficult.

One case had suffered amputation of the upper third of the thigh.

In 1 case a small phosphatic calculus was found and removed after the bladder had been opened.

In six cases internal urethrotomy became necessary on strictures in the penile urethra before the perineum was opened.

REPORT OF A CASE OF CYSTITIS DUE TO COLON BACILLUS COMPLICATED BY PHOSPHATIC CALCULI.

By G. K. SWINBURNE, M.D.,
Surgeon to Good Samaritan Dispensary.

THE case which I am prompted to report is purely clinical and not a bacteriological study, and presents several points which I think are not without interest.

E. D., a mate on a tugboat, was referred to me in January, 1897, by Dr. John B. Walker, who in the previous October had operated on him successfully for inguinal hernia. The second day after the operation he had acute retention of urine and was catheterized by the nurse for three days. The third day there was considerable difficulty in passing the catheter, and some bleeding was caused. After leaving the hospital and returning to work the patient began to pass his urine more and more frequently, which was often accompanied by considerable bleeding at the end of urination and attended with more and more pain. In addition to this every few days there would be a sudden stopping of the stream, with intense pain in the perineum and at the end of the penis; then either the urine would dribble away in a small stream or something would suddenly give way, a small calculus would pass and the stream resume its full volume. At such times there would be considerable bleeding following the act of urination.

All these symptoms steadily increased, the patient was never without a constant pain in the perineum and rectum and an almost constant desire to urinate, and while on his feet could not hold his urine longer than half an hour to an hour, and at night he had to get up every two hours. Every step he took increased the pain in the rectum and perineum. He was constipated, lost appetite, flesh, and strength. The amount of bleeding at this time was a marked feature, and probably came from the posterior urethra. Sometimes a great clot would come away at the beginning of urination, followed at the end by quite a sharp hemorrhage, and this would happen several times a day.

The patient was a vigorous, fairly well-nourished man, had had a gonorrhea five years before which lasted two months and had not, so far as he knew, given him any further trouble; but after he had been under my treatment awhile he remembered that he had from time to time passed small amounts of gravel, which would cause a

burning sensation in the penis, and he would apply at a drug-store for medicine for the bladder, but it had given him no other trouble.

His urine was cloudy, loaded with pus and mucus, under the microscope showed pus, red blood-cells, and crystals of triple phosphates. The prostate was enlarged, extremely tender to pressure, and with the finger I was able to express considerable material. The urethra showed a narrowing at five inches which could be detected by a No. 12 F. olive-tipped bougie. After washing out the bladder from the meatus with a hot solution of boracic acid, I attempted, after thorough cocainization of the urethra, to pass a Thompson's searcher, but this proved to be so painful that I desisted. Collecting the urinary sediment on a slide and staining, I found numerous colon bacilli, but I could find no tubercle bacilli, though I made several examinations. The gravel, which frequently came away in considerable quantity, seemed to be made up of phosphatic concretions.

I was inclined to advise the patient to enter a hospital, but he preferred if possible to keep his place and continue at work, and I concluded to see what could be accomplished by vesical irrigation. The passage even of a soft rubber catheter was so painful that I began with intravesical irrigations from the meatus. At first I used hot solutions of silver nitrate (1-8000) with the irrigator placed at a height of two feet only. Although the patient was more comfortable the following day, the silver proved too painful to continue, as did a mixture of permanganate 1-4000 and bichlorid 1-30,000, and I was obliged to fall back upon hot boracic acid in concentrated solution, using a quart daily. These irrigations quickly rendered him more comfortable, and he was able in a couple of weeks to hold his urine for two hours during the day, and only got up twice at night. At first he could only take about an ounce of the fluid at a time into the bladder, but gradually the amount increased until he could take in half the quart at one time, and I was able to raise the irrigator to a height of five feet. From January to May he came almost daily. He was then passing urine at intervals of two to three hours during the day, and slept all night without getting up. The urine was still cloudy, contained pus and mucus and phosphates, and about once a week he would pass a large concretion of oyster-shell shape with sharp edges. Often one of these would lodge in the deep urethra for several days; even the irrigating fluid would fail to dislodge it; sometimes the fluid would drive it back into the bladder. At this time I again attempted to use the searcher, without success.

I then attempted to return to the silver solution, but again this

gave rise to too great pain. Several times formalin 1-2000, then 1-1000, was tried but quickly stopped on account of the pain caused. I found, however, that he could now bear the mixture of permanganate (1-4000) and bichlorid (1-20,000) very well, and until I left the city in July, this was used. He was also given a capsule containing methylene blue, one grain, boracic acid, four grains, one to be taken after each meal. This accounts for the blue stain of the calculi which are presented which were passed in my office. There were a very large number of these passed at other times which were lost.

When I left in July his urine was still cloudy and contained pus but no blood, and there had been no bleeding for some time. During the summer he took the capsules with great regularity. On my return in October the irrigations with permanganate were again resumed. His condition was about as it was when I left. He could then hold his urine three, four, and sometimes five hours during the day. During October he passed two calculi, and then his urine began to clear rapidly, and by November was absolutely clear and the irrigations were stopped, and from this time no more concretions were passed. His appetite suddenly became enormous, and he rapidly gained in weight for the first time while under my care, his weight running up from 145 to 165, which he attained by December. He no longer suffered from constipation.

In December he had a severe attack of grip and went to bed for several days, and when he returned again his urine was cloudy, but rapidly cleared, the irrigations being renewed.

In February he took a slight cold and his urine again became cloudy. This time I gave him urotropin $7\frac{1}{2}$ grains three times a day, without irrigations, and his urine rapidly cleared.

His last visit to me was in March, 1898, his prostate was normal to the touch, no longer tender. I was able to examine his bladder with a Thompson searcher. The examination was negative. I could not detect any narrowing at any point in the urethra. The patient has remained well since.

Society Transactions.

AMERICAN ASSOCIATION OF GENITO-URINARY SURGEONS.

TWELFTH ANNUAL MEETING, HELD AT CRANSTON'S HOTEL, WEST POINT,
N. Y., JUNE 7 AND 8, 1898.

FIRST DAY, TUESDAY, JUNE 7TH.

The President, DR. J. WILLIAM WHITE of Philadelphia, in the Chair.

The Indications for Operation in Renal Tuberculosis.¹—By DR. ROSWELL PARK of Buffalo.

The author stated that when once the conclusion is reached that the kidney is the seat of a tuberculous lesion, the sooner that organ is removed the better, providing only and always that there be in the other kidney or elsewhere no lesion of a similar character which would serve as a contraindication.

It is possible only in exceptional instances to make the diagnosis so early that one can fully rely upon non-surgical measures, meaning thereby the use of drugs and perhaps of tuberculin. It is also most exceptional to meet with a kidney where the lesion is so isolated that one can safely remove but a portion of the organ.

The question as to the general propriety of operation must be first passed upon; then the exact diagnosis should be made, if possible, as to whether one kidney is involved or both. If it can be clearly established that both organs are affected with this disease, the removal of one will be of little benefit, and often rather a detriment. We have then to determine whether there is any serious tubercular disease elsewhere: especially is this true of the lungs and other inaccessible regions of the body. It is not necessarily so true of lesions in parts which may be safely attacked, as, for instance, lymphatic nodes near the surface, the long bones, the joints, and the skin.

When it can be positively established that there is also tubercular disease of the prostate, seminal vesicles, and perhaps of the testes, the operation is of doubtful propriety, though sometimes with regard to the latter we may apply the same rule as pertains to lesions of other inaccessible parts of the body. When the ovaries are diseased they may possibly be removed at the same time as the kidney; when other deep organs are involved the operation is most inexpedient. When the peritoneum is at fault we may bear in mind the advantage which accrues from opening this cavity, and perhaps may decide to remove the kidney by the peritoneal route.

Operations upon the kidney are of gravity just in proportion to the precariousness of the condition which necessitates them; they should always be so regarded and so represented. To remove the kidney ordinarily is easy and is not a tedious operation, but when it comes to the dissection and separation of the ureter, when its removal is indicated, the measure seriously prolongs the operation—sometimes so much so as to endanger life. What it is best to do, therefore, under these circumstances, should really be left to the decision of the surgeon at the time of the operation, rather than to be carried out upon any preconceived plan.

Partial nephrectomy is contraindicated in theory—although one must confess that it is sometimes apparently successful in practice—because the

¹ See page 357.

percentage of cases in which the kidney is the seat of a single or isolated lesion is exceedingly small as compared with that where the lesions are multiple and disseminated. There is certainly reason to think that after the early removal of a tuberculous kidney, the progress of the infection to the rest of the genito-urinary tract must be at least delayed and is sometimes apparently checked. This is in accordance with the experience of a number of competent observers.

As regards the selection of the operation, the surgeon has the choice between the intra- and extraperitoneal routes. The intraperitoneal route will be selected principally only in the presence of certain specific indications; it will often be called for in the case of little children, this being the only method by which the enlarged kidney can be safely removed in such instances. Whether the operator shall go through the mesentery or the mesocolon is a matter of minor importance, and must be decided entirely according to the emplacement of the diseased organ.

Of the extraperitoneal methods, most operators now select the oblique in preference to the lumbar incision, and for reasons which are quite obvious. The beauty of the method with which König's name is now so commonly connected is the extent to which the incision can be carried; if the size or the mass requires it, it may be extended to the external border of the rectus muscle on the affected side. For ease and convenience in almost every respect it certainly takes precedence over every other method, save in the rare instances in which the kidney is easily shelled out after opening the abdomen. Cases occasionally occur in which it will be of advantage to perform the operation in two sittings.

The Other Kidney in Nephrectomy for Renal Tuberculosis.¹—

DR. J. P. BRYSON of St. Louis read a paper on this subject.

He first reported in detail seven cases of nephrectomy for tuberculosis of the kidney and ureter. In all of these cases the lumbar, or extraperitoneal, operation was done, and in no instance was the peritoneal cavity entered. The history of two of the cases seemed to indicate that there was danger in merely exposing and handling a kidney which gives little or no evidence, on inspection, of being tuberculous. In one instance the organ, which was found to be displaced, was stripped of its *capsula adiposa* and returned to its proper position without suturing, yet the slight traumatism thus inflicted resulted in lighting up an acute stage of the latent disease, and the formation of para- and intranephritic abscesses. In the other case, two kangaroo-tendon sutures were inserted, and a large drainage-tube placed behind the kidney. Increased activity of the disease was quickly noticed. These instances, Dr. Bryson said, may serve as a warning against a too free employment of exploratory lumbotomy to ascertain the condition of the other kidney when removal of its fellow is contemplated. Here, as in other and more accessible organs, *i. e.*, the prostate and the testicle, a very slight trauma may serve to light into an active and destructive inflammation a long-latent and even concealed tuberculous focus, and against this neither the strictest asepsis nor the best skill and celerity of the surgeon can afford an adequate defense.

Dr. Bryson said that in all of his cases, with one exception, the pathological diagnosis depended wholly on the clinical history, the observation of the evolution of the disease for a greater or lesser time, and vesical examination, in which the cystoscope played a major part. The presence or a functioning kidney on the opposite side was in these cases based on palpation of the lumbar region, repeated cystoscopic observation of the ureteral orifices, the occasional blocking of the ureteral orifice of the affected

¹ Will be published.

side, and the urinalysis and urinoscopy during these periods, together with the clinical signs of fever and pain in the loin.

In the first six cases the history, the clinical observations before and after the operation, the examination made of the specimens removed, and the progress of the cases pointed to the bladder and urethra and (in the male) the prostate and seminal vesicles as the points primarily attacked. In the seventh case no positive influence regarding the origin of the disease could be drawn, as the whole clinical picture was clouded by anomalous nervous symptoms and morphinism. In five of these cases the disease, beginning in the bladder, traveled upward along the ureter and infected the kidney, and in three of these where the opposite organ was almost certainly affected subsequently, absence of disease about the ureteral orifice no less than absence of a ureteral symptomatology seemed to justify the inference of a hematoc route of infection for the organ last involved.

In six of his cases the nephrectomy was followed by improvement in elimination done by the remaining kidney, in spite of the fact that in three of those cases the organ showed evidences of being similarly diseased, though to a lesser degree. In one instance this improvement failed to follow nephrotomy and drainage, but promptly appeared and progressed after nephrectomy. In two cases improvement in strength, health, and assimilation promptly followed primary nephrectomy.

DR. F. TILDEN BROWN of New York said that Dr. Park's paper was entirely in accord with his own experience on the subject of renal tuberculosis. He agreed with what Dr. Park said about the advantages of the extraperitoneal operation, and also with his views regarding the treatment of the ureter, leaving it behind or removing it, according to the necessities of each individual case. He believed, also, the good results aimed at by substituting neprotomy for nephrectomy were nearly always disappointing. Nor, in general, would he advocate two operations for the completion of nephrectomy.

Dr. Brown expressed the opinion that the removal of a kidney with advanced tuberculosis often proved quite satisfactory, even in cases where it was certain that tuberculous foci existed elsewhere in the body. In such cases nephrectomy is frequently followed by marked improvement in the vesical symptoms. This gain alone the patient would believe sufficient to offset the risk of the operation.

In a case of suspected renal tuberculosis with positive lesions in the bladder, which give rise to so much distress that suprapubic drainage becomes necessary, together, perhaps, with the removal of mortar-like calcareous masses, the speaker thought it a good idea to introduce a ureteral catheter into each ureter and allow it to remain there during the operation on the bladder, utilizing this favorable opportunity to collect the urine from each kidney. An examination of these specimens will assist us in clearing up the uncertainty that often exists as to which kidney, if either, is diseased; it may also give us an idea as to the extent of the lesion and enable us to decide what our next step should be.

Dr. Brown said he had, of late, been disposed to place greater reliance than formerly upon the value of tuberculin as an aid to diagnosis in obscure genito-urinary diseases. A pent-up tuberculous lesion of the kidney could, in fact, give no stronger indication of its existence and real nature than by a constitutional response to this test. As regards the best method of operating, whether by the intra- or extraperitoneal route, the speaker said that two years ago he had collected twenty-eight cases of nephrectomy; the majority—seventeen—were done by the extraperitoneal route, with no deaths; the other eleven cases were done by the intraperitoneal route, with two deaths.

The speaker said that Dr. R. Abrahams of New York had recently called attention to the genital symptoms, in both male and female, associated with stone in the kidney. According to this author's experience, the very prominent, if not the only subjective symptom was that referable to the testes or ovaries, without any of the painful expulsive lumbar and hypogastric efforts which are usually attributed to stone in the kidney or ureter.

Dr. Brown said that some recent experiences had led him to believe that testicular pain was occasionally symptomatic of renal tuberculosis. The differential diagnosis in cases of nephritis he had sometimes found very difficult. The microscopic search for tubercle bacilli in the urine drawn by catheter from the kidney supposed to be affected, he had not always found satisfactory, and in order to make doubly sure of the reliability of results of examination in such cases, inoculation experiments on animals should be resorted to as well as the microscope.

Dr. Bryson's paper emphasized the fact that our aggressive work in the field of genito-urinary tuberculosis has been too limited, and that the time would probably come when tuberculous kidneys shall be more freely removed, even in cases where the disease is known to exist in the lower urinary tract or even in the opposite kidney. To this view, Dr. Brown said, he should have strongly objected a year or two ago, but his opinions on the subject had undergone a change and he thought we were now justified in resorting to this procedure more frequently in such cases under certain conditions.

DR. JAMES BELL of Montreal said he was rather surprised at the unanimity with which the several speakers had indorsed the extraperitoneal route. His own experience in dealing with large kidneys, especially when they were much adherent or of the suppurative variety, had led him to the belief that the abdominal route was the more satisfactory for several reasons. Among these might be mentioned that it enabled one to determine the condition of the opposite kidney by palpation; furthermore, it enabled one to ligate the renal vessels with greater care. In one case where he had removed the right kidney of a woman who was at the time in such a septic condition that she died two or three days after the operation, an autopsy was made and the speaker said he was horrified to see how close his ligatures were to the vena cava. By doing the operation from the front we are better able to carefully clear the renal vein before ligating it.

Dr. Bell said his experience with nephrectomy for renal tuberculosis was very limited, as he had always felt rather timid about removing such kidneys after the disease had advanced to any extent. In one such case, however, the result of the operation was excellent. In another case the disease was so far advanced that he had to abandon the operation.

The speaker said he failed to see any serious objection to the intraperitoneal route. Dr. Brown had referred to the increased mortality connected with it, but his statistics only covered a small series of cases and too much stress should not be laid on them because it is well known that the worst cases are operated on from the front.

DR. ALEXANDER of New York said that his experience with total nephrectomy for tuberculosis of the kidney was limited to cases in which the kidney was removed on account of so extensive a degeneration that something had to be done, and in such cases he preferred nephrectomy to nephrotomy. The ultimate prospects in these cases, however, he did not consider very good, for the reason that both kidneys were usually involved. Furthermore, the operation, as a rule, did not relieve the vesical symptoms—the pain, hematuria, and tenesmus. In two cases where he had performed nephrectomy for advanced tuberculous disease, the prostate and bladder were also slightly involved, but the pain, tenesmus, and frequency

were very great. In neither of those cases was any benefit derived from the operation, the vesical symptoms continuing the same as before. The only apparent improvement was a decrease in the amount of pus in the urine.

Dr. Alexander said he had hoped to hear something about the ultimate results to be expected from these operations. Personally, he was still in much doubt as to what cases should be operated on.

In reply to a question, Dr. Alexander said that in both the cases he had referred to the opposite kidney was slightly affected. In one of the cases a small portion of the ureter was removed at the time of operation, and was found to be affected. The autopsy showed that the lower portion of the ureter was narrower than normal. In the second case, the ureter did not seem to be involved at all.

DR. EDWARD L. KEYES of New York said he could only recall two cases where there was no serious impairment of health and in which the urinary symptoms were the feature for which the patients sought relief. In one of the cases he had in mind the patient looked the picture of health. He was passing water every ten minutes, night and day. He finally died, and at the autopsy it was found that his bladder and prostate were perfectly sound and that one kidney was pyonephrotic while the other was healthy. In the other case the symptoms were equally distressing, and in addition there was hematuria. In that case the tubercular disease was confined to the surface of the prostate. In both of these cases the most pronounced symptoms were those of urinary irritability. Dr. Keyes said they emphasized the fact that we cannot formulate any rule as to how much relief operative interference will afford. The whole question of tuberculosis of the genito-urinary tract and its treatment rests more on diagnostic acumen than upon operative skill, and each case must be judged on its merits as to when we shall act and what we shall do.

DR. PARK, in closing, said that men who did general surgery as well as special surgery would probably agree with him that the condition of tuberculosis, wherever it was attacked in the body, called for a certain line of treatment which had no exact parallel. For example, surgeons often operated for tubercular disease with the knowledge of the fact that the disease existed elsewhere in the body; they did not do this in malignant disease. The speaker said he considered it just as proper to attack a tuberculous kidney as he did to attack a tuberculous joint or a fistulo-in-ano. We remove a tuberculous kidney in order to get rid of a positive menace to health, sometimes even with the hope of curing the patient, sometimes only to give temporary relief.

Dr. Park said he had the same dislike to doing a nephrotomy for a tubercular condition as he had to doing a partial operation for tuberculosis elsewhere. While under certain circumstances we cannot do a complete operation, still, whenever it is possible, nephrectomy should be preferred in these cases to nephrotomy, because, by removing the kidney, we lessen the danger of dissemination of the disease.

As regards the mode of operating, the speaker said that while the abdominal route was simple and even preferable under certain conditions, he did not think it possessed the advantages of the extraperitoneal route.

DR. BRYSON, in closing, said he thought that symptoms referred to different portions of the genito-urinary tract were a very important guide to the surgeon in the diagnosis of renal involvement. The symptom of testicular and ovarian irritation, for example, in cases of renal tuberculosis of the kidney, or of any diseases confined to the kidney, was not uncommon. The speaker said he had never seen a case, however, where increased frequency of urination, with or without tenesmus, could not be adequately ac-

counted for by some local lesion, unless there was polyuria. The explanation for this urinary irritability could frequently be found in the condition of the lower or middle portion of the ureter.

Dr. Bryson said he never operated on a kidney for tuberculosis unless he had good reason to believe that a tubercular focus exists there which is not getting its proper vent. His observations had convinced him that the general medical treatment for renal tuberculosis was less successful than the treatment of this disease in any other portion of the genito-urinary tract, but in spite of this the speaker said he had seen some remarkable recoveries resulting from general medication, especially from the use of hypophosphites, creosote, and guaiacol, and he was perfectly in accord with the views of Tuffier, who holds that an operation should not be done until general treatment has been given a satisfactory trial.

Dr. Bryson said he agreed with Dr. Brown that the advantages of nephrectomy in renal tuberculosis were much better appreciated now than a few years ago. The total operation should be preferred to nephrotomy unless there are special indications for the latter.

In answer to a question, Dr. Bryson said he did not palpate the kidney through the rectum, but simply did rectal palpation to assist him in ascertaining the nature of the disease. He preferred the extraperitoneal route and always resorted to it under ordinary circumstances.

Syphilis, and Some Affections Which Resemble It.¹—DR. J. A. FORDYCE of New York read a paper on this subject, and showed numerous photographs illustrating the conditions referred to.

He stated that while, as a rule, syphilis reveals itself by clearly defined features and symptoms, cases are not infrequently met with which demand all the experience and knowledge of the expert to determine their true nature. It may be truthfully stated that no other condition, with the possible exception of tuberculosis, presents such widely diversified phenomena and has such important relationship with both internal medicine and surgery. We cannot always appeal with success to the microscope to settle doubtful cases, even where the lesions are accessible to excision. We have, fortunately, in the therapeutic test a potent means of determining the nature of certain doubtful cases, but even here there are possibilities of error which occasionally confront us.

Dr. Fordyce said that while it was frequently possible to make a diagnosis of syphilis with the appearance of the initial sore, experience has taught him to be conservative in this respect, and he generally advises the patient to await the development of positive signs of constitutional infection before beginning the use of mercury.

Error is more apt to arise in the diagnosis of extragenital chancres, for the possibility of primary syphilis away from the genital organs is not always borne in mind by the practitioner. The speaker said he personally knew of several instances in which the primary sore of the lip and face was excised under the mistaken diagnosis of epithelioma, the subsequent development of constitutional symptoms rendering the character of the disease unmistakable.

In the diagnosis of the secondary stage of syphilis, the acute exanthemata, drug eruptions, and a multitude of non-venereal eruptions may confuse the physician if all the concomitant symptoms are not given proper consideration. The speaker said he recalled one instance where a patient with a smallpox eruption was admitted to one of our large city hospitals with the erroneous diagnosis of syphilis. The mistake was not discovered until the death of the patient and the outbreak of variola among a number of the exposed patients and hospital attendants.

¹ Will be published.

The iodids in susceptible individuals sometimes produce pustular and ulcerative eruptions, which simulate very closely the rupial lesions in syphilis, and as the iodids are employed to combat such an eruption, it is sometimes difficult to distinguish the one from the other.

In the so-called tertiary stage of syphilis the disease is again prone to localize itself, and can, in the skin, imitate tuberculous processes or malignant disease; in the subcutaneous tissues, new growths of malignant nature; in bone, tuberculosis or sarcoma; in the testes, tuberculosis or other neoplasms. Syphilis of the tongue is one of the most common antecedents of cancer of this organ, it being sometimes difficult to determine when syphilis ceases and epithelioma begins.

Cases of Recurrence of Stone in the Bladder.—DR. ARTHUR T. CABOT of Boston read a paper on this subject.

His observations were based on a series of 135 operations which he had done for stone upon 119 patients. In this series there were 115 litholapaxies, with 4 deaths; 13 suprapubic lithotomies, with 4 deaths; 2 median lithotomies, with 1 death; and 2 vaginal lithotomies, with 1 death. The series only included cases of formal operation under anesthesia, and took no note of many instances in which a crushing or pumping operation had been done, with or without cocain, for the removal of small recurrent stones or for retained fragments.

In the above series there were two cases where a uric-acid stone reformed in consequence of the persistence of the diathesis that led to the original formation. On one of those patients he had operated twice, and on the other three times. The series included nineteen instances in which a phosphatic stone appeared some months or years after the removal of a primary stone. In two or three instances the primary stone was a uric-acid calculus; in all the other cases it was phosphatic. In six of these cases the previous operation had been done by some other operator.

This recurrence of a phosphatic stone, Dr. Cabot said, may be due to the persistently alkaline condition of the urine, but it is much more common as a result of some local condition. In two or three of the cases the occurrence might, perhaps, be regarded as the result of an incomplete operation, leaving a fragment to serve as a nucleus for a new stone. In two cases, sacculated stones which lay concealed in pockets in the vesical wall gave rise to repeated stone-formation in the bladder-cavity. Finally, it is notorious that tumors and granulating surfaces within the bladder are prone to be incrustated with salts. The crystals that exist in the urine do not tend to cohere and form a stone excepting in the presence of albuminous material. The constant reappearance of a phosphatic stone in the bladder usually indicates the existence of some local causes which should be sought and removed. The suprapubic route affords the best opportunity for inspection and for the operative treatment of any condition found.

DR. WILLIAM K. OTIS of New York said that he also was in favor of resorting to litholapaxy whenever possible, because of the lower mortality of the operation and because the subsequent discomfort to the patient was much less than after any of the other operations for stone; at the same time it did not prevent or interfere with the performance of any future operation which might be demanded. One objection which had been urged against litholapaxy was the danger of leaving fragments; this the speaker thought had been overrated. Where fragments are left, their presence is made known by the irritation they give rise to, or by cystoscopic examination, and it is very easy to crush them and leave the débris to be passed with the urine.

In connection with this subject Dr. Otis exhibited a calculus which he had removed from the bladder of a man thirty-eight years old, by supra-

pubic cystotomy. An effort had been made to remove it through the urethra, but this proved unsuccessful, as the stone was firmly adherent to the bladder-wall. The nucleus of the stone proved to be a piece of chewing-gum which the man had introduced into his urethra about four years previous to the operation.

DR. ROSWELL PARK said he had once had the opportunity of examining the surgical specimens of the late Dr. David Prince of Jacksonville, Ill., and among these were numerous vesical calculi. In two of these calculi the nucleus was the penis bone of a raccoon. Dr. Park said he had had a case where the nucleus was a hair-pin.

DR. KEYES said he had in his collection a bunch of horse-hair and four hair-pins which had served as nuclei for vesical calculi.

The speaker said the continual recurrence of phosphatic stone was easily understood in those cases where there is some obstructive condition, and the toilet of the bladder is not properly effected. In such cases the formation of calculi is only a symptom. In other cases the stone forms in the kidney and then increases in size in the bladder, where it gives rise to certain symptoms which are alleviated with the removal of the stone; here, the stone itself is practically the whole disease, and when we remove it it is reasonable to expect that there will be no recurrence.

DR. CABOT, in closing, said he agreed with Dr. Otis that the objection urged against litholapaxy, *i.e.*, that fragments were apt to be left behind, had been overrated. The same objection might be urged against suprapubic cystotomy, as after that operation we are likely to leave granulating points on the upper bladder-wall where we may have deposits of calcareous matter. The speaker said he knew of three instances where stone had recurred after the suprapubic operation.

Speaking of curious nuclei in this connection, Dr. Cabot said he had had one case (in a woman) where the nucleus was a hair-pin; in another case (a man) the nucleus was a piece of leather shoe-string; in a third case, it was a piece of a catheter; the last two calculi he had removed without cutting.

A Modification of the Technic of Perineal Section.¹—By DR. ORVILLE HORWITZ of Philadelphia.

Report of a Case of Cystitis Due to Colon Bacillus, Complicated by Phosphatic Calculi.²—By DR. G. K. SWINBURNE of New York.

External Urethrotomy.—DR. J. R. HAYDEN of New York read a paper with this title.

He stated that his object in bringing up this subject was not to advance new or original methods, but rather to accentuate certain points in the technic of the operation and the after-treatment of the case. Such conditions as recontraction of the stricture, perineal abscess or fistula, and uncured urethrocystitis were not uncommon after this operation, and may be partially due to the patient's ignorance or neglect, and partially to faulty operative and post-operative procedures which can in a great measure be avoided.

The following points in technic were emphasized by Dr. Hayden:

1. *Division of the Stricture.*—All of the stricture tissue should be completely divided in the median line, not only on the floor but also on the roof of the canal. In order to ascertain whether the division of the tissues has been complete, the index-finger, with its palmar surface directed upward, should be passed into the perineal wound and down to healthy urethra, well in front of the stricture, and then backward on the roof of the canal into the bladder; this will readily detect any bands or masses which have not been thoroughly divided. At the same time the dilatation of the posterior ure-

¹ See page 362.

² See page 374.

thra with the finger prevents in a great measure post-operative tenesmus. The perineal operation being completed, a full-sized sound should be passed from the meatus into the bladder to ascertain that the whole length of the urethra is clear; if obstructions exist they may be removed by meatotomy, internal urethrotomy, or post-operative dilatation.

2. *Bladder Drainage.*—This the author regarded as a most important measure after this operation. He advised the use of a large perineal tube, which keeps the bladder well drained, dilates the posterior urethra, and to a certain extent the divided stricture, and is an ever-ready route for bladder irrigations, which are so essential in the treatment of urethrocystitis. In from two to four days after the operation the tube is taken out, washed, and replaced; it is removed permanently on the fifth to seventh day, when the patient is allowed to be up and about. In the majority of the cases all the urine is passed by the urethra in about one week after the removal of the tube, but in some the urethral wound remains patulous for several weeks.

3. *Post-operative Dilatation.*—When the tube is first taken out for cleaning, a medium-sized sound is passed into the bladder and held there for about a minute; this is repeated every second or third day until the perineal wound has cicatrized, and the urethra takes a No. 28 to 30 (French) sound with ease, according to the case, when the intervals are made longer.

4. *Treatment of the Perineal Wound.*—The perineal wound should be personally inspected every day to see that it is healing solidly from the bottom by firm, healthy granulations, and is not allowed to bridge over in places, or fill up with pale, flabby tissue. This can be prevented by running the finger firmly through the bottom of the wound from end to end. Exuberant granulations are removed by the nitrate of silver stick or curved scissors and the wound dressed lightly with gauze.

Some Observations on the Use of Urotropin in Pyuria.¹—By DR. GEORGE E. BREWER of New York.

A Consideration of the Urinary Distance as a Diagnostic Factor of Prostatic Hypertrophy.—DR. E. L. KEYES of New York read a paper with this title. The following were his conclusions:

1. The urinary distance varies in the adult healthy male from something over six inches to something under ten inches, but may be honestly averaged at eight inches.

2. The shorter lengths are found in short individuals having a small penis. A large organ naturally contains a long urethra, and this is most certainly the case if the individual be tall.

3. The age of the individual seems to cause a very moderate increase in the urethral length, irrespective of disease.

4. In prostatic hypertrophy the urinary distance averages more than eight inches, and is longer in cases of peripheral general hypertrophy than where the enlargement is median or in cases of bar.

5. In a doubtful case, a consideration of the urinary distance may become an important element in the diagnosis.

DR. EUGENE FULLER of New York suggested that measurements of the urinary distance would be more valuable for diagnostic purposes if we disregarded absolutely the penile portion of the urethra, and confined ourselves to measuring the distance between the point where the beak of the instrument enters the triangular ligament and the point where urine begins to flow. This method would give us a set of measurements which would prove less confusing than where the entire length of the urethra was taken. In old men, where the muscles of the penis have lost their

¹ Will be published.

tone and the organ possesses little erectile power, it probably becomes longer than in young men.

DR. CABOT said we occasionally find cases where it is extremely difficult, by rectal touch, to make out with any degree of accuracy the size of the prostate. A striking example of this fact had come under the speaker's observation some time ago. He was asked to examine an old man who was supposed to be suffering from prostatic hypertrophy. A rectal examination disclosed what appeared to be a very large prostate, which extended beyond the reach of the finger; several other men examined him and came to the same conclusion. Castration was afterward done and the man died. At the autopsy they were surprised to find an extremely small prostate, while the body which they had mistaken for the prostate was the bladder, which was small, with thick, hypertrophied walls; the line of demarcation between the bladder and prostate was not at all marked.

Dr. Cabot said he had noticed a considerable increase in the length of the urethra in fat men; the length of the perineal portion of the urethra seemed to be greatly increased in such persons.

DR. W. N. WISHARD of Indianapolis called attention to the fact that the quantity of residual urine varies in an individual case, depending on the amount of prostatic congestion, and that this would produce more or less variation in the urinary distance. The speaker mentioned another possible source of error which was illustrated in a case recently coming under his observation. The patient was a man with a distinct pedunculated intra-urethral hypertrophy which had dilated the prostatic urethra, producing a sort of pouch into which the urine drained continuously from the bladder; on inserting a catheter for six and one-half inches, it entered this pouch and urine commenced to flow, which at first gave him the idea that he had reached the bladder, but on introducing the catheter three inches further the urine began to flow with much greater force. A condition like this, Dr. Wishard said, might lead one to make an error regarding the true urinary distance.

DR. BRYSON said that about three or four years ago he published, in connection with a case of castration for prostatic overgrowth, a method for measuring the urinary distance which was practically as follows: A single-elbowed catheter was employed, with its eye near the tip and behind the bend of the elbow; with the patient in a half-sitting position and a full bladder, the catheter is introduced until it taps the urine; then it is slowly withdrawn until urine ceases to flow. This is regarded as the posterior prostatic base. The finger is then introduced into the rectum until it reaches the apex of the prostate; the catheter is then withdrawn until its elbow is felt at the apex of the prostate. This will give us the distance from the apex of the prostate to the point where a catheter will tap the urine which is in the bladder. Of course, the distance will vary with the quantity of urine in the bladder.

In certain cases of prostatic overgrowth associated with anterior and lateral malformation of the organ, the prostate may be very large and yet the urinary distance may be comparatively small.

DR. KEYES, in closing, said that the method of measuring the urinary distance in prostatic cases with the soft catheter was reasonably accurate and did not inflict any injury on the patient.

Recovery with Restoration of the Vesical Function Following a Total Extirpation of the Prostate and Resection of the Bladder for Malignant Disease.¹—By DR. EUGENE FULLER of New York.

¹ Will be published.

SECOND DAY, WEDNESDAY, JUNE 7TH.

A Study into the Nature of Enlargement of the Prostate.—

DR. SAMUEL ALEXANDER of New York gave a lantern-slide exhibition demonstrating a method of studying the anatomy of the normal prostate and of obstructive enlargement of the prostate. The study was based upon observations made on 106 cases of enlargement of the prostate and over 100 cases of normal prostate. The slides consisted of photographs of the prostate and bladder taken in various positions, and of very large microscopic sections which were used as lantern-slides. He called attention especially to the causes of vesical insufficiency due to prostatic overgrowth, and spoke in detail of the part which the accessory prostatic glands played in causing obstruction. He believed that the obstruction was primarily due to the destruction of or interference with the insertion of the vesical muscle covering the trigone by the increasing glandular growth. He showed by a series of sections that enlargement of the posterior prostatic isthmus never caused obstruction, although it might cause great increase in size; that obstruction was due either to enlargement of the lateral lobes, or of the middle isthmus, with or without proliferation of the accessory prostatic glands; that the enlarged prostate grew principally backward toward the bladder and not forward toward the urethra; that the projection of the lateral lobes into the urethra was always from above downward, or from the sides, and that the only form of obstruction upon the floor of the urethra was due to enlargement of the middle isthmus. He also called attention to the surgical anatomy of the prostate and illustrated by slides the feasibility of enucleation of the enlarged glands through the perineum by the method which he had already described.

Dr. Alexander said that one could form no idea of the form of prostatic obstruction by rectal examination, and the usual methods of studying the prostate gave very imperfect results; it was due to the defects in these methods of study that such great differences of opinion existed in regard to important points in the pathological anatomy of enlargement of the prostate. In order to get an adequate idea it was necessary not only to study the gross specimens of enlargement of the prostate, but also to study them microscopically by means of large sections made through the entire gland and the adjoining portion of the bladder. In this way alone the true relations of the obstructing portions to the vesical muscle can be ascertained.

Upon each of the slides shown by Dr. Alexander were mounted three photographs of the same prostate taken from a different aspect, namely, a photograph of the internal vesical orifice, a photograph of a longitudinal sagittal section of the prostate and bladder, and a photograph of the interior of the bladder and prostatic urethra taken after the anterior wall of the bladder and upper commissure of the prostate had been divided. Each picture was accompanied by microscopic sections, the sections including the entire prostate and a portion of the bladder.

DR. E. L. KEYES congratulated Dr. Alexander on his work, which he said was an admirable step in the right direction for generalizing and formulating some rule in connection with operative procedures upon the prostate, which thus far was lacking. The speaker said that to a certain extent he agreed with Dr. Alexander's statements regarding the preponderant influence of the lateral lobes in producing obstructive trouble, particularly when they project inward behind the verumontanum. There are cases, however, where the third lobe, or bar, forms a very serious obstruction. In some cases the prostate is very much enlarged, and still there is no obstruction to the outflow of urine.

In operating on these cases of prostatic overgrowth the important thing

is to lower the floor of the urethra so that the bladder can thoroughly evacuate itself. The speaker said he was impressed with this fact by a case he saw some years ago. The patient was a man who had been confined to his bed for over a year with symptoms of stone and prostatic overgrowth; he suffered severe pain and had become an opium-eater. His urine was loaded with pus. Dr. Keyes opened the bladder above the pubes and removed several stones. He also found that the third lobe of the prostate was enlarged to about the size of the little finger; this he snared off slowly and then cauterized the base. The man made a good recovery, but he was still unable to thoroughly empty his bladder. He was sent home and instructed to use the catheter regularly in order to prevent the recurrence of stone. Within a few months he gained about sixty pounds in weight and felt so well that he neglected to use his catheter. As a result of this he returned in about nine months with another phosphatic stone. The bladder was thereupon opened through the perineum, the stone removed, and the bar of the prostate completely dilated after cutting through it. This was over three years ago, and in a letter recently received from the man he stated that he was absolutely well and had no residual urine. After the first operation he did not get well because the floor of the urethra was not sufficiently lowered to allow the bladder to completely evacuate itself.

DR. ARTHUR CABOT said he had listened to Dr. Alexander's demonstration of this subject with pleasure, and had been instructed by it. The point that struck him most was the relationship of the trigone to the prostate; he had never before so fully realized the fact that the post-prostatic pouch was really the post-trigonal pouch. Dr. Alexander's demonstration would certainly prove of great value to the surgeon who worked in this field.

DR. W. K. OTIS said that the lantern-slide exhibition given by Dr. Alexander clearly demonstrated the fact that marked prostatic hypertrophy may exist without giving rise to retention. In certain cases which had come under the speaker's observation, the third lobe was entirely at fault. In one case the patient suffered from frequency, and had eight ounces of residual urine. The bladder was opened above the pubes and two stones, about the size of almonds, removed. At the same time the third lobe of the prostate, which was very much enlarged, was cut away. A perineal opening was then made and a tube inserted. In spite of this the bladder did not drain well, and polyuria developed, followed by a pleurisy, which required tapping. Drainage of the bladder was finally established through the suprapubic opening, and the patient made a perfect recovery.

DR. W. F. GLENN of Nashville said that about two years ago he had operated on a man seventy-two years old who suffered from marked nocturnal frequency and had long been addicted to catheter-life. For six months previous to the operation he had been confined to bed and he had become much emaciated. Through a median perineal incision it was found that the middle lobe of the prostate was enlarged to about the size of the little finger, and behind it lay a phosphatic stone. The latter was removed and then, after splitting the mucous membrane, the prostatic tissue was thoroughly gouged out with the finger; the bar, however, was not cut. A drainage-tube was left in for three weeks, and the patient rapidly gained strength and weight. The residual urine entirely disappeared and the man slept undisturbed at night. He also regained perfect control over his bladder. About a year later he died suddenly from a rupture of the aorta.

DR. BRYSON said Dr. Alexander's demonstration clearly showed that to a certain extent surgeons had thus far been working in the dark in this field. His own experience tended to confirm the observations of Dr. Alexander regarding the importance of the bar as a factor in cases of prostatic overgrowth. The speaker said that in several instances he had resorted to the

method of enucleation of the enlarged prostate described by Dr. Alexander some years ago, and while the enucleation was very easy in some cases, in others it was quite difficult; in one instance he had to gnaw away the hard, fibrous tissue with the forceps.

DR. J. WILLIAM WHITE of Philadelphia said that although the work done by Dr. Alexander in this field might have no immediate clinical application, it would serve as a basis for the future and enable us to formulate certain rules of guidance in the treatment of the fibrous and glandular forms of prostatic hypertrophy. By work along this line we may be able, in the future, to differentiate between those cases which are suitable for enucleation or prostatectomy, and those which may possibly be benefited by castration or vasectomy.

DR. ALEXANDER, in closing, expressed his appreciation of the kind manner in which his demonstration of this subject had been received. His work in this field thus far was only preliminary, rather than final, and he hoped in the future to make a more complete presentation of the subject and clear up many of the points now in dispute. The speaker said he had undertaken these investigations with but one object in view, and that was to ascertain the actual condition of the prostate in these cases and to ultimately arrive at a point where we will be able to differentiate between cases which are suitable for one method of operation and those suitable for another. We shall probably, however, never be able to lay down absolute rules in this connection. The personal element is very important in the treatment of these cases. Every surgeon, as the result of his experience, derives a certain knowledge which leads him to make a better or worse diagnosis than another, and he must often be guided by the condition of affairs he meets with at the time of operating.

In regard to the importance of the middle isthmus, or so-called third lobe, we must remember that a very small amount of glandular growth in this region will interfere with the function of the vesical muscle. The speaker said he agreed with Dr. Bryson that enucleation was not possible in all cases. We have thus far been operating on these patients as a last resort. As we increase our anatomical knowledge of the prostate we shall attack these cases at an earlier stage and with much better chances of success than heretofore. These hard, fibrous prostates are probably the result of secondary changes. In the earlier stages of prostatic hypertrophy, enucleation is easy, but after secondary changes have occurred it becomes difficult, and, in some cases, impossible.

Personal Experience in the Operative Treatment of Prostatic

Obstruction.—DR. ARTHUR CABOT of Boston read a paper on this subject, in which he reported in detail the results of five cases of orchidectomy, four cases of orchidectomy followed later by prostatectomy, and six cases of prostatectomy—all for the relief of obstruction due to hypertrophy of the prostate. The speaker said that when he came to consider the question of permanence of results, which next to that of immediate mortality was the most important, the data were not sufficient for definite conclusions. In order to hasten the final correct solution of this question he thought it very desirable that surgeons dealing with this class of cases should put on record all observations coming within their opportunity, both of patients operated upon by them and of those seen by them after operation by others. In this way only can we speedily accumulate the facts necessary for a correct judgment.

Dr. Cabot said it was not his intention to attempt to draw any conclusions from cases so few in number as he had thus far accumulated. He wished, however, to point out the fact that in five cases orchidectomy failed to relieve the obstruction and the mechanical reason for this was afterward

investigated either by operation or autopsy. In every one of these cases the obstruction was found to be due to the outgrowth into the bladder of prostatic tissue, which was not removed by the shrinkage that followed orchidectomy.

The speaker said that in those cases where there was very much enlargement of the prostate, with symptoms of obstruction, which gradually grew more pronounced, he had rather favored orchidectomy; while in another class of cases, where early and marked obstruction was associated with only moderate or slight enlargement of the gland, leading him to believe that the condition was a valvular one due to a prostatic outgrowth into the bladder, he preferred prostatectomy. In one case where he had resorted to orchidectomy he had been at first much encouraged by the marked improvement shown by the patient, but recently the patient had again appeared with seventeen ounces of residual urine.

In conclusion, Dr. Cabot said that the present success attending the use of our modern soft catheters in cases of prostatic obstruction has reduced the number of cases in which he had found it necessary to resort to operation.

DR. ALEXANDER said he had been impressed by the cases reported by Dr. Cabot where he found enlargement of the middle portion of the prostate and the accessory glands, and where, following orchidectomy, there was shrinkage of the prostate without any effect upon the amount of residual urine. The speaker said that we could well understand that where we have uniform enlargement of the glandular tissue in the prostate, removal of the testes may cause shrinkage there.

DR. J. WILLIAM WHITE said it was impossible to draw any definite conclusions from so limited a number of cases as had been reported in Dr. Cabot's paper. He had noted, however, that those cases where orchidectomy had been resorted to were the more desperate ones—men of advanced age, with very large prostates, and complicated in some instances by stone. In cases where prostatectomy had been performed, complete relief was obtained in only one instance; partial relief was obtained in several, while the rest were of very recent date and the final result could not be stated. A comparison of the results of the two operations in the series of cases quoted by Dr. Cabot would not redound so very strongly against castration.

Dr. White said he did not make this defence of castration with any thought of conveying the idea that that operation should be resorted to in all cases of prostatic hypertrophy. He frequently declines to resort to the operation himself in cases which he regards as unsuitable for it. At the same time, in every case he thought it worthy of receiving fair consideration.

Some Observations Concerning the Prostate¹.—DR. R. H. GREENE of New York read a paper on this subject, which consisted of a preliminary report of his observations in a series of 214 cases of urethritis. The observations were undertaken in order to determine (1) the relative frequency of involvement of the posterior urethra in acute urethritis; (2) the condition of the prostate, and (3) the nature of the prostatic secretions. The series was made up of cases which represented the ordinary run of dispensary patients, no attempt being made to select those who complained of subjective symptoms pointing to the prostate.

The posterior urethra was found to be involved in 142 cases, or 66 per cent. The anterior urethra alone was involved in 72 cases, or 34 per cent. The prostate was found to be swollen in 102 cases, or 47 per cent. of the

¹Will be published.

total number of cases examined. In 73 of these cases the enlargement was most marked in the left lobe (71 per cent.); it was most marked in the right lobe in 19 cases (19 per cent.), and in ten cases (about 10 per cent.) the enlargement seemed to be general.

Secretions from the prostate were obtained as follows: After thoroughly washing the bladder and urethra the prostate was massaged through the rectum. The patient was then instructed to pass his water as soon as he was able to do so; this urine contained the secretion massaged from the prostate, which was put in bottles and examined microscopically. The complete results of these pathological examinations, Dr. Greene said, would be withheld for a later paper; briefly, the reports were interesting from a negative rather than from a positive standpoint. In the last series of twenty cases, pus was found in fourteen; diplococci were found in three specimens of twenty-nine examined.

Dr Greene said that one of the most interesting facts disclosed by these investigations was the frequency with which congestive inflammations, causing swelling of the prostate, accompanied urethritis. It would be interesting to learn whether these swelling eventually disappeared entirely or not. The writer believed that in some cases at least they did not, and suggested that his statistics might afford a little comfort to those who believed that an earlier urethritis was sometimes a predisposing cause to the prostatic hypertrophy of later life.

Chronic Catarrhal Prostatitis¹.—DR. H. M. CHRISTIAN of Philadelphia read a paper on this subject. He stated that in the vast majority of cases, catarrhal prostatitis occurs as a result of chronic posterior urethritis, the acini or follicles of the prostate becoming involved in a chronic catarrhal inflammation from extension of the same process from the mucous membrane of the deep urethra.

Among the more prominent clinical features of this affection the speaker mentioned: (1) Prostatic discharge at the meatus upon waking in the morning. This condition is frequently mistaken for gleet; as a matter of fact, the discharge is distinctly different from that of true gleet, in that it is colorless, resembling glycerine in appearance and does not stain the linen. Its presence at the meatus is probably due to an atonic condition of the compressor urethræ muscle, permitting some of the prostatic secretion contained in the follicles of the gland to enter the anterior urethra. An examination of the first morning urine will positively settle the character of this discharge, the absence of clasp-shreds in this urine proving conclusively that the discharge is entirely prostatic in character. (2) Prostatorrhea: this condition is brought about by the over-distention of the glandular tubules with prostatic secretion. Its occurrence is noticed, as a general thing, at defecation, or at the close of urination, and in some few aggravated cases it appears after some unusual physical exertion. (3) Constant urethral pain, located either at the glans penis or in the perineum, relieved temporarily by urination.

Another group of symptoms, causing much mental perturbation to these patients, is increased frequency of urination, associated with a forked or sprinkling stream, with perhaps some little dribbling. A rectal examination is essential in all cases where we are led to suspect the presence of catarrhal prostatitis. If the prostate be the seat of a chronic catarrhal inflammation, it will be found to be somewhat larger than normal, and soft to the touch; stripping the gland cause much pain, and is invariably followed by the appearance at the meatus of an abundant prostatic discharge

¹Will be published.

which upon microscopic examination is found to be made up of granular phosphates containing pus.

Our main reliance in the management of this affection must be in some of the various forms of local treatment. Of these, regular and thorough massage of the prostate, at least once a week, is of the first importance. This maneuver should be carried out by the use of the finger alone. Mechanical devices do not accomplish the purpose nearly as well as the finger. Irrigations of the deep urethra with silver nitrate solution are also very important. The regular passage of full-sized cold sounds is of considerable value in the majority of cases, but great care should be taken to see that the sound does not give rise to urethral irritation; if it does, its use should be promptly discontinued. Ichthyol suppositories, introduced into the rectum at bedtime and followed in the morning by a hot rectal douche give very beneficial results.

DR. CHRISTIAN said he had frequently been asked what effect bicycle riding had upon patients with chronic prostatitis. He expressed the opinion that this form of exercise, so far as his experience went, exerted no injurious effects either upon cases of chronic prostatitis or upon the normal prostate. With a saddle properly constructed and adjusted there is no harmful pressure at any part; on the other hand, the most improperly constructed saddle, pressing as it does upon the bulbomembranous portion of the urethra rather than upon the prostate gland itself, is not capable of producing the injurious effects so generally attributed to it.

DR. GLENN said he indorsed the remarks made by Dr. Christian regarding the treatment of this affection. Cold applications he considered beneficial, especially when applied through the rectum. Thorough and regular massage of the prostate with the finger should also be carried out. In one case which had recently come under the speaker's observation he was unable to reach high enough with the finger to do effective work; he thereupon had an artificial finger made of hollow German silver, with a handle attached, which answered the purpose very satisfactorily.

DR. E. L. KEYES said he was very chary of passing a sound in cases of prostatitis, as he thought it frequently did harm rather than good. He thought well of ichthyol suppositories in these cases. The massaging of the prostate with the finger he disliked from an esthetic standpoint, and personally he rarely resorted to it. The jolting incident to bicycle-riding is no doubt injurious to patients with prostatitis.

DR. G. K. SWINBURNE of New York referred to the value of hot rectal douches through some form of recurrent tube, like the Kemp tube. The speaker said he had long ago abandoned the practice of passing sounds in these cases, and he thought this should be avoided as far as possible. A microscopical examination of the urethral discharge should be made in every case.

DR. BRYSON said he was also opposed to the introduction of urethral sounds in these cases.

DR. JOHN VAN DER POEL of New York said that in those cases where subjective sensations in the anus are complained of, a strong perineal douche, at a temperature of from 60° to 80° F., and with from twenty-five to thirty-five pounds pressure, would often give relief.

DR. FREDERICK R. STURGIS of New York said we were apt to confuse prostatitis, which is an acute or chronic inflammation of the prostate gland, with prostaticorrhea, which is an entirely different thing. In prostatitis, the microscopical examination is very important. The presence of pus in the secretion will prove that we have to deal with a case of prostatitis and not of prostaticorrhea. The presence or absence of prostatic crystals will determine whether the secretion is from the prostate gland or the urethra.

The treatment of these cases varies very widely. In cases where the inflammation is recent, the use of the sound is contraindicated. Local applications of silver nitrate or sulphate of copper, made through the endoscope, will prove of service. In prostaticorrhea very little good can be done by the sound or by means of local applications. Local treatment is sometimes of service, but our main reliance must be placed on the internal use of ergot, iron, and belladonna, either in combination or alone. Prostatitis is an inflammation of the prostate; in prostaticorrhea there is a relaxed condition of the openings of the ducts from which this secretion comes. Dr. Sturgis said that ordinarily it was difficult to obtain genuine prostatic secretion by manipulation through the rectum; the secretion obtained in that way he thought came from the urethra and not from the prostate. The microscope should be used to test it.

DR. ALEXANDER said he wished to confirm the statement made by Dr. Sturgis that it was very difficult to squeeze out any of the secretion of the prostatic glands, even in fresh specimens from the dead body. Usually, the secretion that is squeezed out by rectal manipulation comes from the seminal ducts.

Dr. Alexander said that no absolute rules could be laid down in regard to the treatment of acute prostatitis or prostaticorrhea. What benefits one patient may harm another. Massaging the prostate may prove beneficial in one case and harmful in another; the same is true of mild applications of silver nitrate. Each case must be judged on its own merits. The prognosis is extremely uncertain, so far as the duration of the disease is concerned.

DR. F. TILDEN BROWN said he agreed with Dr. Sturgis that a clear distinction should be drawn between prostatitis and prostaticorrhea. He also agreed with what had been said regarding the difficulty of getting an un-mixed secretion from the prostate by rectal manipulation. The secretion obtained is usually a mixed one, containing elements from both the prostate and seminal vesicles. If, immediately after massaging the prostate, we get a secretion which contains a goodly number of corpora amylacea and a large number of refracting crystals, and no spermatozoa, we can be fairly well satisfied that the secretion comes from the prostatic gland.

In certain cases of prostaticorrhea there has been associated with it a very extreme condition of catarrh of the mucous glands of the entire urethra, with sometimes a redundant prepuce and balanitis.

DR. ALEXANDER said the diagnostic value of the corpora amylacea could not always be relied on, as these bodies had been found in the seminal ducts alone, and also in the fluid of the seminal vesicles.

DR. E. L. KEYES said that in some cases, after stripping the prostate, the first urine passed looked like bacterial urine, and upon centrifugalization left a sediment having the gross appearance of urates. Under the microscope, perhaps, no corpora amylacea nor spermatozoa could be found, but numerous fine spiculæ—little, minute bodies—resembling high-grade urates, but more linear than granular.

DR. STURGIS suggested that the material referred to by Dr. Keyes might be the secretion from the urethral glands.

DR. GREENE, in closing, said that the cases to which he had referred in his paper did not include those forms of prostatitis which we see associated with neurasthenia. The statistics he gave showed how frequently the prostate was involved in gonorrhea without giving rise to any particular subjective symptoms pointing to that organ.

DR. CHRISTIAN, in closing, said that in the cases of catarrhal prostatitis which had been under his care he was convinced that the secretion came from the prostate, and not from the urethra or seminal vesicles. The

secretion, under the microscope, was found to contain pus, which undoubtedly came from the follicles of the prostatic gland, as the bladder and urethra had been carefully washed out beforehand.

Dr. Christian said he agreed with Dr. Keyes that massaging the prostate was a very disagreeable method of treatment; at the same time, it was a very successful one in certain cases. In many cases of prostatitis the use of the sound, as well as over-vigorous local medication, was contraindicated.

Dr. J. WILLIAM WHITE in reply to a question, as to the effect of bicycle-riding on the male genito-urinary organs, said that he was president of a bicycle club, and had examined many men who indulged regularly in this form of exercise, and he had yet to see a single case where it had exerted an injurious effect on the normal prostate, the perineum, or any portion of the genito-urinary apparatus.

Report of a Case of Sclerotic Narrowing of the Meatus.—DR. GEORGE K. SWINBURNE of New York.

Dr. KEYES said he had seen an analogous—although not identical condition—in syphilis.

Dr. J. WILLIAM WHITE said he had seen a similar case in which the lesion was thought to be a precursor of epithelioma.

Dr. F. TILDEN BROWN said that some years ago he had reported a case of narrowing of the meatus due to diphtheria. In another case due to syphilis about one-half the circumference of the urethral roof was involved, causing considerable contraction, not of meatus but one-half inch within.

Are Complete Castrates Capable of Procreation?—Dr. FREDERICK R. STURGIS of New York read a paper with this title. His conclusions were as follows:

1. In animals, for a varying period after complete castration, normal spermatozoa are found in the contents of the seminal vesicles.

2. This period varies in different animals, being six days for the dog, seven days for the cat, and fourteen for the guinea-pig.

3. In man, clinical cases are recorded where fecundation of the female has occurred after coitus with a male who has been completely castrated, but in accepting the correctness of such statements we must remember the adage that "accidents may happen in the best-regulated families." Still, Princeteau's case (if correct) proves that spermatozoa do exist for a certain time in the seminal vesicles of a eunuch, and arguing from analogy of what occurs in animals, this is quite probable.

4. Still pursuing the analogy, in man, as in the dog and cat, a complete castrate may be capable of procreation providing the coitus occurs within the first seven days after the castration.

Dr. W. F. GLENN said he saw no reason why impregnation was not possible after castration if any healthy spermatozoa in their normal pabulum remained. So far as man was concerned, there was little danger of his having intercourse so soon after castration.

Dr. STURGIS said that his main object in presenting the subject was to stimulate further research in connection with it. It would be interesting to ascertain, for example, for how long a period live spermatozoa could be found in patients upon whom double castration had been done. Experiments in that line would be of value from a medico-legal standpoint as well as from a purely scientific point of view.

Dr. BROWN said he had found live spermatozoa in a man's seminal vesicles fourteen hours after death; it was very probable, therefore, that they could be found there for much longer periods than this after double castration.

Dr. GLENN said that in one case where he had removed the testes the man was still capable of having intercourse and enjoyed it.

DR. WHITE said he knew of many similar cases.

A General Consideration of the Contributing Factors in Hematuria.—DR. WILLIAM K. OTIS of New York read a paper with this title.

He stated that every hemorrhage of the urinary apparatus results from the extravasation of blood, either as a whole, or of blood-corpuscles, or of the blood pigment alone. The cause of the blood extravasation lies in increased blood-pressure, or in changes in the vessels, or in a combination of both. Hemorrhages of the urinary apparatus result, therefore, in inflammatory processes, in traumatic injuries, in diseases of the vessels, in the exanthemata, in scurvy, and through erosion of the vessels in ulcerative processes and neoplasms. Among the rarer forms of hematuria or hemaglobinuria might be mentioned those caused by general diseases or by parasites, as filaria, or those due to traumata.

The causes of hematuria which we most frequently encounter and which possess the greatest importance have their origin in either the bladder or the kidney, and are due directly to (1) stone (including gravel and acid crystals); (2) tumors; (3) tuberculosis; (4) inflammatory conditions, cystitis, and nephritis.

Stone in the bladder causes hemorrhage either by directly injuring the mucous membrane by its movements, or, as Guyon has shown, by the presence of the stone alone, which induces a chronic congestion of the mucous membrane, frequently causing profuse and intractable bleeding, which is neither increased nor abated by either movement or repose on the part of the patient and which usually persists until the foreign body is removed. Stone in the kidney causes hematuria either by its passage through the ureter or by its retention in the pelvis of the kidney.

Tumors of the bladder may cause hemorrhage even though they are benign, and in these cases the hemorrhage is due to the presence of the foreign body in the bladder. When the tumor is malignant the hemorrhage is caused by the ulceration of the vessels; for the most part, however, such hemorrhages are not severe. As a rule, renal hemorrhage from a neoplasm begins spontaneously, is unaccompanied by pain, and is uninfluenced by either movement or rest, ceasing suddenly without apparent cause, just as it began. It is apt to be more abundant than when caused by stone, and clots frequently form in the bladder. Its duration and the intervals between the hemorrhages are irregular. In some cases the bleeding may be occasioned by exercise and cease when the patient remains quiet.

When the hemorrhage is due to tubercular ulceration it can only be differentiated from that caused by neoplasms by bacteriological examination of the urine for bacilli, by the discovery of tubercular foci in other parts of the body, or by the tuberculin test.

Hemorrhages may occur in either acute or chronic cystitis or nephritis, but these are rarely of much severity. The clinical features of these cases will readily determine the cause of the bleeding.

A certain number of cases of renal hematuria have been reported in which no lesion was found, but as most of these have lacked the corroboration of a microscopical examination, or from some other reason have been imperfect, Dr. Otis said he was inclined to believe there could be no hemorrhage from any portion of the genito-urinary tract without some lesion being present, though undoubtedly this may be so small as to entirely escape notice but at the same time be capable of giving rise to profuse hemorrhage.

NEW YORK ACADEMY OF MEDICINE.

SECTION ON GENITO-URINARY SURGERY, STATED MEETING, HELD ON TUESDAY EVENING, APRIL 12TH, AT 8.15 O'CLOCK.

DR. R. H. GREENE, *Chairman*.

A Case of Ureteral Calculus.—Presented by DR. FORBES HAWKES.

The patient was a male, twenty-four years of age. The speaker first saw him at Trinity Hospital while taking Dr. Fisk's service for him last November, when he gave the following history: He was an exceedingly delicate child. Three years ago he had attacks of nausea and vomiting lasting several days and pain in the right lumbar region rather posteriorly. At this time the pain did not radiate to the bladder or penis. The attacks came on once a month with severe pain. Nine months ago the pain seemed to be altered in character, beginning to radiate down into the bladder and urethra but not into the scrotum. It was burning in nature and was quite sharp at times. About this time he noticed that his water was passed more frequently and was darker in color. He also noticed that the flow of urine would stop at times and that then a small amount of clotted blood would come away. There was no pain referred to the bladder or to the urethra during urination, but on getting up he would have pain. During November examination of the urine showed a few red blood-cells and epithelial cells. Upon palpation no tenderness was found over the region of the kidneys. He did not palpate particularly along the ureters at this time, but only over the region of both kidneys. The twenty-four-hours' urine was saved but no blood-cells were found. The pain died away. He introduced a Thompson's searcher into the bladder but no stone was discovered. After being under observation for a few weeks the patient was obliged to leave the hospital. He returned about a month later saying that the attacks had come on again, and that he suffered a great deal of pain of the same character as previously and passed a considerable quantity of blood in the urine, which, on examination was found to contain blood-cells, pus-corpuscles, and phosphates. On December 23d, after the patient had emptied his bladder, the kidneys were again palpated and no difference noted. But on flexing the trunk (the patient sitting up in bed) a tender, almost immovable body could be detected on the right side, about the size of an English walnut, situated just below the level of the umbilicus. Small movable insensitive masses in the abdomen on the right side could be made out, which he thought were glands.

During the next two hours he had considerable pain. He then passed several drops of urine involuntarily; the pain kept up for two hours longer when he had a strong desire to pass water; a few drops came, then a stoppage, followed by the sudden passage of the calculus with about sixteen ounces of urine. Microscopical examination of this urine showed: acid, pus-cells in large numbers, epithelial cells, amorphous phosphates; no casts. The weight of the stone was $14\frac{1}{2}$ grains, and it was $\frac{3}{8}$ to $\frac{1}{4}$ inch in diameter, length $\frac{5}{8}$ inch.

There being no reaction following, the next day Thompson's searcher was introduced into the bladder but no calculus could be felt. The pus and phosphates soon disappeared from the urine. On the left side there was tenderness over the ureter which disappeared in about twenty-four to thirty-six hours. He was free from pain about three days after the stone passed.

On February 14th the urine was found to be 1020, acid, clear, faintest

trace of albumin, a few pus-cells; patient urinates three or four times a day and has no pain. He has gained ten or fifteen pounds in weight.

DR. F. TILDEN BROWN thought this was an interesting case and a very valuable contribution to the subject of stone in the ureter. He considered the calculus quite large to get through the ureter under any circumstances. It was remarkable the amount of dilatation the ureter was capable of. He thought the patient as well as the physician were to be congratulated upon the favorable issue of the case.

The Chairman, too, thought it was quite curious the amount of dilatation the ureter could be subjected to to admit the passage of a stone as large as the one presented.

A Case of Double Epididymitis (Tuberculous) with Result of Tuberculin Test.—Presented by DR. CHARLES W. ALLEN.

The history of the case is as follows:

F. G—, male, thirty-eight years of age, single, gives a family history of both parents living and healthy, three brothers and one sister healthy; there is no tuberculous history in the family.

Eight years ago the patient had an attack of gonorrhea. No lesion has been noticed on his penis and no history of syphilis can be obtained. For five or six months he has had a hacking cough, with expectoration and night-sweats. During the past two years he has complained of general malaise. There is no history of trauma.

Eight months ago he first noticed small, hard, painless swellings in both testicles; during that same week he applied to the surgical department of the dispensary for treatment. Under the iodids the swellings continued to increase in size, but caused him no pain or discomfort.

Status Praesens.—Well-nourished, robust individual. Both epididymes markedly enlarged, very hard and nodular in outline, and painless on pressure. Heart, normal. Left half of chest normal, but there is dulness and prolonged expiration over the right apex. On January 1st he was admitted to the skin department.

Rectal Examination.—The right lobe of the prostate was found to be enlarged to the size of a horse-chestnut and was distinctly harder than the left lobe; about the center of the left lobe is a small, exceedingly hard nodule the size of a pea.

The seminal vesicles were milked and the secretion that was collected was placed under the microscope; no spermatozoa were found; examination for the tubercle bacilli also proved negative. No tubercle bacilli were found in the urine.

On March 28th, at three P.M., there was injected into the left shoulder (into the deltoid) 3.8 mg. of tuberculin. No pain resulted. He was given internally the following:

R	Creosote	.	.	.	.	.	.	.	.	.	.	.	mxlviii
	Glycerin												
	Spts. frumenti												℥ ij.
	} aa												

M. S. Two teaspoonfuls thrice daily.

March 29th.—At midnight, after the injection, the patient became chilly, felt cold, and remained awake the rest of the night. Coincidentally he had headache, pain in the back of the neck, anterior and upper part of the chest, both testicles and urethra, with an aching sensation about the glans, causing him to rub and pull upon the glans penis. On arising he had an abundant expectoration, with coughing, which was an unusual occurrence, the cough being previously dry and hacking.

At 10.30 A.M. the cough had continued. Temperature, taken in the mouth, 101° F. The respiration was labored, noisy, and 32 per minute.

The pulse was 100 and full. The tongue was coated and flabby. Both epididymes were tender, spontaneously painful, very slightly increased in size, if at all.

Examination per rectum showed the right lobe of prostate distinctly larger than at the last examination; the left was the same size as previously and not so cartilaginous. There was cough with expectoration.

April 4th.—The day after the injection he still felt chilly. There appeared an eruption upon the face and chest—a papular eczema. There were pains in the back of the head, back of arms, front of legs, and small of back. The tongue for several days has had on its tip a flat, tender, yellowish-white, round ulcer, surrounded by a grayish-white border, to which methylene blue was applied.

April 12th.—The patient feels well. He has less cough, less papular eczema, and there is no tenderness in the epididymes. Rectal examination was not made. The sputum was free from bacilli.

The Chairman said it was interesting to us all to see cases of commencing epididymitis, *i. e.*, where there was slight infiltration in which we were in doubt as to what the cause of the infiltration was. It seemed to him that the method used by the speaker would help to clear up some of those doubtful cases.

DR. GOLDENBERG asked if any examination of the urine was made after the injection. He had understood that in tubercular infection of the urinary tract this was the best time to make it. He asked if there was any hardness of the seminal vesicles.

DR. ALLEN replied that there was no hardness of the seminal vesicles, and that but little fluid was obtained by expressing them. No examination of the urine was made subsequently.

DR. STURGIS asked how many attacks of gonorrhea the patient had had.

DR. ALLEN replied that the patient had denied having had gonorrhea, aside from that eight years ago. With the epididymes in that condition shown one might expect to find the seminal vesicles free from spermatozoa, and such seems to be the case.

A Case of Urethroplasty in a Case of Old Traumatic Stricture of the Urethra, and A Case of Mixed Tumor of the Bladder were then presented by DR. F. TILDEN BROWN. The histories of these two cases will be published.

A Case of Syphilis.—Presented by DR. SWINBURNE.

The patient had had syphilis for one year without being aware of it. He was under treatment for chronic gonorrhea and his syphilis was only accidentally discovered when the patient, who has a hernia, asked to have it examined, when the pigmented eruption over the thighs and calves was noted. He denied ever having had a chancre, but this eruption had come on five months after a sore on his finger caused by the scratch from a brass wheel; this sore had become infected and the history was that of an ordinary inflammatory infection. This sore was a long time in healing, taking some weeks. There were enlarged glands all over the body, and also this pigmented eruption. The epitrochlear, the inguinal, and other glands, were all enlarged.

The speaker had seen a similar case two or three years ago in a young man, who had a paronychia of the thumb, which was followed by a lymphangitis, which passed off, and as the paronychia began to heal it became circular in shape and of the peculiar appearance of a chancre. Six weeks later a roseolar eruption appeared all over the body. The source of the syphilitic infection could not be discovered.

DR. FERD. C. VALENTINE presented Albarran's modification of Guyon's syringe, which had not been shown here before. The syringe was the same

as Guyon's except that the packing was always ready for use. By means of the screw the packing was readily made to fit the glass barrel. The speaker expressed surprise that the Frenchmen were allowed to get ahead of us in this simple arrangement. If you turn the screw to the left the packing was loosened; but if you turned the screw to the right it was tightened and could be made almost immovable. The speaker said he had not the time to dwell upon the therapeutic use of the instrument.

The Practical Use of the Endoscope.¹—DR. HERMANN G. KLOTZ read a paper with this title.

DISCUSSION.

DR. F. TILDEN BROWN opened the discussion by stating that there was but little left to discuss after the very thorough presentation of the subject by Dr. Klotz. He thought the thanks of the Section should be extended to the doctor for showing what could be expected of the endoscope, and, at the same time, speaking of its limitations. It was interesting to hear his report that, in his experience, the anterior urethra was the seat of more chronic discharges than the posterior urethra. He thought that probably after he had had as great an experience as the doctor he would have the same report to make, but, at the present time, he was inclined to believe the posterior urethra gave more trouble of this nature.

Only to-day the speaker saw a patient the history of whom would prove Dr. Klotz's statement. A patient was brought to him who had had the lacuna divided at two and a half inches and the doctor thought he had been cured of his trouble, but the discharge continued and it was thought that the trouble was somewhat deeper in his urethra. A large 28 six-inch Klotz tube was introduced and he found very faint superficial granulation in the prostatic urethra, which bled slightly. These he demonstrated to the physician who brought him the case. This condition seemed hardly sufficient to account for the presence of the shreds in the urine. At two and a half inches he also noticed a stiffening of the urethra, as referred to by Dr. Klotz. There was also noticed a thin, purulent fluid. He thought that the lacuna was evidently the seat of the trouble. He had nothing more to add to the history of this case, but he did wish to show the Section one or two instruments for making applications. Instead of using sticks he used aluminum wire tips for use through the tube. In making applications, instead of dipping the swab in the solution, he had the solution in a convenient syringe, and, according to the condition present and the size of the tube used, he would wind a little cotton about the tip and dip it in a solution of nitrate of silver, or else he would leave the tip bare. In leaving it bare he would deposit one or two drops on the affected areas. The tube he had brought simply to demonstrate the extremely small caliber which could be illuminated by an electric head-light, which the speaker now uses in preference to anything else.

DR. F. R. STURGIS said he had a few points to make and would not enter upon any criticism of the paper. First, in regard to the illumination, he had tried many methods and had discarded all for the direct illumination with the head-light, with the lights made larger. He found, too, that camphor dissolved in the kerosene made a better light.

In regard to the points of congestion in the canal, he thought it was important that we should all remember the seat of these natural points. The deepest color is in the prostatic portions of the canal, and as the instrument is withdrawn the color steadily becomes a pale red until the meatus is reached. At the posterior part of the prostatic urethra, there is a crimson

¹ Published in July number.

cone; further forward, the membrane appears paler; still further forward it becomes distinctly pale. Certain normal points of congestion were found at a distance of one-half, three and one-half, five, and six inches, and at these normal points lesions were more likely to occur. Six-tenths of all lesions occurred in the bulbous portion; in the bulb the congestion was more marked, as it was in the prostatic portion, and here was often found a moderate amount of bleeding, following the slightest traumatism. Besides this condition of urethritis, sexual debility had been found to be due to congestion of those portions and about the ejaculatory ducts. Granulation tissue was much more likely to occur in those portions of the canal.

The endoscope had proven itself to be of great advantage over other methods of examination, but the fenestrum can produce a great deal of disturbance, and even hideous malformations, if the utmost care be not used. In making applications through the endoscope one should always bear in mind these normal points of congestion; hemorrhage here readily occurs on account of its being so richly endowed with vessels.

He had used strong solutions and even the actual cautery without producing much pain, but the speaker cautioned against the too frequent use of applications. He used weak solutions of tannin or sulphate of zinc. In average cases twenty per cent. of silver nitrate will not produce much disturbance unless used too frequently.

Another point that he wished to make was that we frequently find, where we have an infiltration of the urethral mucous membrane in a normal canal, that this membrane drops down over the endoscope and appears in shapes varying from a transverse slip to an opening similar to that made by the bite of a leech. This condition of the mucous membrane forms a kind of balloon and obstructs vision; this obstruction can be overcome in part by pricking this balloon.

DR. JOHN VAN DER POEL said he could scarcely add anything to what had already been said upon this most interesting subject, presented in such an able manner by Dr. Klotz, but he must thank the author for again calling the attention of the Section to this very excellent method in the diagnosis and treatment in genito-urinary diseases. He was especially interested in the remarks of Dr. Sturgis in regard to the localized spots, or neighborhoods, of congestion which was found in the normal urethra, and he thought it was extremely important to bear these in mind, especially when using a large-sized tube, when with sometimes but a slight change in the position of the tube, either causing it to recede or advance, will cause so much difference in the color of the mucous membrane, and this point should be especially remembered by those attempting endoscopy for the first few times.

With regard to chronic posterior urethritis, there was one class of cases when he deemed it extremely useful, but especially in diagnosis, and that was in that class of torpid cases which were almost exclusively characterized by full feelings and troublesome sensations in the perineum and anal region, and by the spermatorrhea of defecation, where we find an hypertrophy of the vera montanum, with gaping of the prostatic sinus and sometimes, too, of the ejaculatory ducts. In these cases it is impossible to get a proper idea of the condition of things without the use of the endoscope, although we know that endoscopy of the posterior urethra is often a very painful undertaking.

A class of cases not generally mentioned was those where we find whitish plaques of thickened epithelium, caused by too frequent local cauterization and which resembled, to a great extent, the appearance of stricture, the difference being mainly, however, that the stricture was hard and

non-resistant, with perhaps a gaping or irregular opening, having lost its elasticity, whereas the plaques were soft and still elastic.

As to diagnosis in general, he thought it should not be forgotten that in many, if not the majority, of cases, the old, simple, classic methods would give almost, if not as much, information, and that endoscopy should not be resorted to until these simpler methods had been tried, but where the diagnosis was still doubtful.

DR. TUTTLE said he was much interested in Dr. Klotz's work. He could think of nothing to say in regard to the paper of the evening, but he did take exception to the remarks of Dr. Sturgis in regard to the immunity of the membranous portion of the urethra; he had found in the majority of cases in using the endoscope that granulation tissue was almost invariably present in this portion of the canal. In nearly all cases in which we find bleeding and spasm with inflammation of the urethra, there can be found patches of granulation tissue and upon their level little cracks in the mucous membrane—cracks which resemble fissures in the rectum. There is also spasm in the cut-off muscle, or the compressor urethrae, which is kept up by the irritation that continues the inflammation. And until those cracks are treated, the same as should be done with fissure in the anus, the urethral condition will not get well. Often extreme dilatation of the urethra at this portion of the canal will give more relief than any other form of treatment. The attempted introduction of the endoscope into the deep urethra, without previous dilatation, will cause a spasm of the muscle, which makes it almost impossible to introduce it. If you first dilate the canal then you can proceed all right and it is then quite an easy matter generally. And so one avoids traumatism in introducing substances into the deep urethra.

DR. FERD. C. VALENTINE thought that Dr. Klotz's paper would serve to make urethroscopy more popular. There were some points, however, with which he could not agree. One of these was in regard to the light. He did not see how it was possible to project light through such a narrow tube and at such a distance and still be able to see anything; he thought this must require an unusual amount of skill. The speaker used Oberlander's urethroscope and was well satisfied with its use. Contrary to the statement of the reader of the paper, the right hand was free at all times.

In his practice, cocain has not always proved as safe as many believe it to be. The speaker has had two cases of poisoning in his office, produced by the injection of small amounts of cocain; one of these was a case of acute mania, lasting two or three hours.

The question of examination of the posterior urethra had been dilated upon by members of the Section, but it seemed to the speaker that the ordinary technic does not offer great difficulties. A little delicacy in handling makes the posterior urethra almost as easily accessible as the anterior.

The Chairman, DR. ROBERT H. GREENE, said that he had made an examination of 200 cases at Bellevue Hospital, to find out how often the posterior urethra was affected in cases where the anterior urethra was affected. From his examinations it was impossible to say absolutely which was the more often affected. The statistics arrived at showed that ninety per cent. of cases of inflammation of the anterior urethra, this inflammation extended into the posterior urethra. These statistics bore out Dr. Goldenberg's statistics.

In regard to the endoscope, he used the ingenious one devised by Dr. Brown, the dilating endoscope. He used Dr. Klotz's tube, with the electric light from a lamp so arranged that it could be screwed up or down like a telescope. He uses it on a flexible arm which comes out from the wall.

In the use of this instrument the arms are left free. His only trouble was in obtaining a suitable battery to give a light powerful enough.

DR. KLOTZ closed the discussion. He agreed with Dr. Sturgis in regard to the points of congestion occurring in the normal urethra.

The speaker had found that where there was disease of the membranous portion, it yielded to treatment more readily than at points anterior to this portion.

He had tried the endoscope in cases of sexual debility, but he was sorry to say he was not satisfied with the results.

He agreed that the posterior urethra could stand stronger solutions than the anterior. Instrumentation of the posterior urethra was always painful, but did not create so much disturbance as the use of chemicals in that part.

In regard to the granulations, he had hoped to be able to fight shy of that term. Everybody seemed to mean something different in using this term. He had seen the paper where Finger claimed that granulations were largely due to dilatation of the blood-vessels, particularly in that portion where we had papilloma. Papilloma may exist deeper down in the urethra than is generally stated in text-books.

In regard to the use of cocain, he had never used a stronger solution than four per cent. and had never had any bad effects.

DR. STURGIS asked if any of the gentlemen present had ever used eucaine instead of cocain. Claims were made for it that it was non-poisonous, non-irritating, and produced anesthesia quickly. He referred to one case where the membrane was extremely hyperemic, which shrunk under examination under its use, and the sensibility was relieved very decidedly.

The Chairman, DR. GREENE, said he had used eucaine in circumcising a boy; he used the strongest recommended and the patient experienced no pain.

DR. VALENTINE said he had used eucaine in a number of operations upon the urethra and invariably the patients complained of pain in subsequent urinations.

Selections.

GENITO-URINARY DISEASES.

Sequestrum as a Foreign Body in the Urethra. DR. S. GROSLIK
(*Centralblatt f. d. Krank. d. Harn-und Sexual-Org.*, p. 642, 1897).

The author details a very interesting case of foreign body in the urethra, a sequestrum probably from the pelvic bone, and goes very completely into the literature of similar cases. The patient was a young man, twenty-six years old, who had suffered for nine months from an obstinate purulent discharge from the urethra. He related that one night, after coitus with his wife, he had severe pain in the deep urethra and then during urination, and a disagreeable feeling remained in the urethra. The pain was continuous, independent of urination but was increased by it. Afterward there were traces of blood and a whitish discharge; for several days there was an edema of the penis and scrotum. A physician pronounced and treated the case for a gonorrhea, without making a microscopic examination. Patient continued under treatment for nine months, then consulted the author, calling his attention to a hardness under the skin at the scrotal border. Patient had never had a gonorrhea, was married, had had no outside intercourse. Pressure on the hard body at penoscrotal angle

caused pain, there was abundant discharge, containing pus and bacteria but no gonococci. An elastic catheter was stopped at the penoscrotal angle. The stream of urine was of good volume. An endoscopic tube, No. 21, did not reach the obstruction, but the urethra in front was normal. A Thompson searcher struck the hard body with a click, and a diagnosis of urethral stone was made. An attempt to remove with urethral forceps failed, though the body could be grasped. As there was no grit left on the teeth of the instrument it was concluded that the stone was of considerable hardness. Removal by external urethrotomy under chloroform was decided upon. After anesthetization, an attempt was made to dislodge the foreign body from its bed with a sharp spoon. By this manipulation the body was removed with a little bleeding, a catheter *à demeure* left in forty-eight hours. Recovery followed, though there was a chill and fever. The body was found to be a bit of bone, half an inch long, quarter of an inch wide, smooth on one side, the other side rough, and the border sharp and jagged. The bone was undoubtedly a sequestrum, apparently from the pelvic brim. The bladder wall probably had formed an adhesion with the affected bone, and the sequestrum had ulcerated through. It had not, however, remained long in the bladder, as there were no incrustations. There was a history, twelve years before, of a fall, long-continued illness, in bed with trouble in one hip-joint; a year or more passed before the patient regained full use of the limb. This was followed a few years later by chronic osteomyelitis in the bones of the arms, the sequestra separating without pain. The same trouble had probably occurred also with the pelvic bone.

In 1881 Ungerer collected all the cases published up to that time of fragments of bone occurring in the urethra and bladder; of these there were only five in which the foreign body was a sequestrum from the pelvic bone. Since then Heydenreich and Gayet have each observed one, and this report by the author makes the eighth. The youngest case was eighteen years old, the oldest forty years. In all the cases the bone trouble occurred in childhood with complete healing, and many years had elapsed, in one case thirty years, before disturbance of the urinary organs occurred. In four cases the foreign body lodged in the urethra, three times at a distance of 6-9 cm. from the meatus, and once in the membranous portion. Three times the sequestrum remained in the bladder as a nucleus of a stone, and in the other four cases it first entered the bladder. The most frequent manner of the entrance of bone fragments into the bladder is through gun-shot wounds; next in frequency it occurs from fracture of the pelvis; next from fetal bones occurring in extra-uterine pregnancy. The least common from dermoid cyst. Ungerer collected 41 cases of gun-shot wound, 15 cases from fracture of pelvis, 13 from ectopic gestation, 8 from dermoid cyst, and 6 from unknown causes.

Hydraulic Pressure in Genito-Urinary Practice, Especially in Contracture of the Bladder. DR. H. H. YOUNG (*Johns Hopkins Hosp. Bull.*, p. 100, 1898).

The author reports several cases of long-standing cystitis with small, contracted bladder, in which marked improvement followed distension of the bladder several times a day with weak antiseptic fluids, the method employed being to fill the bladder to distension by hydrostatic pressure, from the meatus, without the use of a catheter. Thompson's fluid, consisting of borax, glycerine, sodium chlorid and water, or two-per-cent. boric-acid solution were the most frequently used. The improvement in the cases was marked, the pain and constant desire of urination being the first symptoms to abate, the patients being able to hold the urine a longer

time, and the bladder capacity being markedly increased; the urine also improved in quality.

One question which the author sought to solve was whether there was danger in this distension of the bladder of forcing infectious material into the ureters. He experimented on the cadaver. After removing the intestines the ureters were dissected out and cut off near the bladder, and the bladder injected with a strong solution of methylene blue; no fluid was forced out through the ureter though nearly two quarts of fluid was injected. In another cadaver with large sacculated bladder and double hydronephrosis it was impossible to force fluid into the ureters. Experiments in the living dog also showed failure to force fluid beyond the bladder into the ureters.

In cases of urethral stricture of small caliber, even in cases admitting only a filiform, in which the patient was able to urinate only by great straining, fluid could easily be forced into the bladder by means of hydrostatic pressure, the patient afterward urinating it out with comparative ease. These cases were improved by this method of treatment.

In a case of atony of the bladder, the condition was benefited by alternate distension and evacuation, a sort of bladder gymnastics.

[In his description of the technic of irrigating the bladder without a catheter, the author advises raising the reservoir until the resistance of the cut-off muscle is overcome. This seems to the reviewer not to be altogether good practice, and may easily cause traumatism. The patient can readily learn to relax in such a way that even a height of two and a half feet is in some cases sufficient to overcome this resistance, and it is seldom necessary to have the height greater than five or six feet. Then, too, the injection of a one-per-cent. solution of cocaine into the anterior urethra will assist in this. It must not be forgotten that in these cases of contracted bladder there may be danger of rupture of that organ, such a case having been reported in France.

A method which the reviewer has found to work well in these cases of chronic cystitis has been, after thoroughly washing out the bladder, to fill it to a point where there is a sense of distension and then have the patient hold the fluid in the bladder as long as possible before urinating it out. This may be fifteen minutes to half an hour. This method was also pursued with success in a case of frequent urination, with small bladder capacity, apparently of nervous origin, following a method successfully tried by Janet in three cases reported by him.

The dilatation of urethral stricture by hydrostatic pressure has been used by the reviewer ever since he began to use urethral and bladder irrigations, and the same thing has been advocated by others.

One statement by the author should be known, and that is that bladder irrigation without a catheter, generally called the Janet method, was discovered and used by Dr. Halstead in New York as early as 1883.—G. K. S.]

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Society Transactions.

TWENTY-SECOND ANNUAL MEETING OF THE AMERICAN DERMATOLOGICAL ASSOCIATION.

HELD IN PRINCETON, N. J., MAY 31 AND JUNE 1, AND IN NEW YORK CITY,
JUNE 2, 1898.

JAMES NEVINS HYDE, M.D., of Chicago, *President*.

PRESIDENT'S ADDRESS.

GENTLEMEN OF THE AMERICAN DERMATOLOGICAL ASSOCIATION: It is my pleasure and duty to extend to each of you, in the name of all, a greeting on the occasion of the opening of the twenty-second annual meeting of our Association.

At our last reunion we had the honor of a few words from one of the most distinguished of the pathologists of this country, and in these he touched as if by special selection upon the importance of the eosinophilous cells in relation to the study of diseases of the skin, urging the importance of special attention to the problems thus presented. His words have been justified by the results of a year of study. Dr. Galloway, one of our eminent colleagues in Great Britain, and a most conscientious and careful observer, was early in announcing that eosinophiles had been recognized by him in the fluid obtained from artificially produced blisters; that they were not exclusively recognized in the group of diseases which may be described as of herpetic and pemphigoid type. But a field of great promise has been opened by more recent investigation, as to the possibility of securing immunity against the infectious diseases with which dermatologists are confronted. Fine, round, colorless granules, exhibiting an active ameboid movement when exposed to a high temperature, have been shown to be products of the oxyphile leucocytes and the bactericidal and phagocytic

energies of these bodies may be conferred upon a serum into which has been flowing a stream of these fine dust-like granules from the collapsing cell-bodies. Briefly, the bactericidal power of both cell-swarming and cell-free fluids has been practically shown by experiments conducted by Messrs. Stokes and Wegefarth of the Johns Hopkins Hospital, thus opening the vista of a future in which the human family may be protected and relieved from attacks by infectious disorders.

As to the sources of such infection, the battle which has long been waging in dermatology between the advocates of an internal and of an external origin for cutaneous diseases, threatens to be awakened in the light of a larger knowledge and a more extended experience. While, for example, the glycosuric xanthomata are in most cases directly traceable to the presence of sugar or albumin, or both, in the urine, a later pathology is teaching that all diabetic deterioration is due to a systemic and general affection, and not, as was once believed, to an exclusively renal disorder. No intelligent observer can fail to recognize the vast importance of auto-intoxication in the production of some cutaneous diseases. In 1889, when some of us were in attendance upon the International Congress of Dermatology and Syphilography, in Paris, one of our distinguished colleagues read an interesting and novel paper on the influence of dilatation of the stomach in the production of acne. To-day the existence of acne, even an acne of severest type, has been repeatedly relieved by lavage of the upper colon; and the securing of asepsis for the alimentary canal has provided another source of relief. Later investigations of this important subject have placed the essential facts in a clearer light than in the day when surmise was the chief dependence of the searcher for the truth. Uric acid is now recognized as the eventual product of nuclein rather than of albumin, and the xanthin and paraxanthin bodies are the intermediate coefficients of the uric-acid process. The increase of leucocytes is often to a degree proportioned to the uric-acid production. Suboxidation of the xanthin bodies, or better bases, explains many cases of auto-intoxication; and who, even if afraid to name the poison of gout as an efficient factor in certain dermatoses, will venture to deny the statement that some of the rosaceas, as well as cases of acne vulgaris and other disorders of inflammatory type, differing both in seat and severity, may be due to xanthin poisoning. If there be those who, in the face of these chemicophysiological discoveries, are still disposed to deny the arguments in favor of specific auto-intoxication, they should in this connection recall demonstrations which have been made of the presence of the bacterium coli commune in pustules forming upon the skin in grave cases where, as a result, the patient has gone into collapse. Here the direct evidence of the absorption of poison from the rectum and even of the passage of the bacterium in question through the walls of an abraded intestinal membrane, admit of no controversy. Even the physiological secretions have been shown by French experimenters¹ to possess

¹Arloing, *Acad. of Med. Scien.*, July 26, 1897.

toxic properties. Dogs and rabbits have been destroyed by injecting into the blood from 15 to 20 cubic centimeters of normal sweat for each kilogram of the animal's weight.

In surveying the results of a year's work in the interesting field which many of us are cultivating, it may be comforting to reflect that but a few of the traditions of the past decade have been rudely shaken. You have, however, noted, without doubt, that Professor Herman Munk (*Virchow's Archives*), the successor to the Chair of Professor Dubois Raymond, in Berlin, has definitely announced that one can no longer hold that the thyroid gland is essential to life, and that abrogation of its functions produces a cachexia resulting in a group of diseases of distinct type. The results of his carefully made and extended experiments are interesting to us for the reason, first, that in the group of maladies to which reference has been made, is placed myxedema, a disease in which occur well-marked affections of both the skin and the hairs; and, second, because the thyroid-gland products have been employed by a number of our colleagues in cutaneous disorders supposed to have a much simpler origin than myxedema—this on the basis of the improvement recognized in goiter and other affections of like character. Among such dermatoses may be named psoriasis.

The fact of the holding of an International Leprosy Conference during the year last past is not without interest from many points of view. It directs attention to the fact that at last the world is bestirring itself to first consideration of, and let us hope later to definite action on, the grave problems presented by the existence of leprosy in so many regions of the globe. If it were possible that an International Board of Health might deal with this problem for all the nations of the earth, a board supported and sustained in its operations by the several countries requiring its services in the care of lepers, there might be a prospect of obliterating the malady from among the races of men. Distant as such a consummation may seem, it is a hopeful sign that an international congress has broken ground by a first meeting for consideration of the subject. That the bacillus lepræ should be accepted as the essential virus of the disease was to be expected, even making allowance for the fact that it has not yet definitely met the final test required for scientific proof of its etiological value in the production of the disease in a sound individual from generations of pure culture. But, let us admit it without hesitation, there are some conventions in science, as in morals, which it is unwise to set aside. By our colleagues in this Congress emphasis was laid upon a fact which no dermatologist and no public health officer can ignore: that the secretions from the skin, the nasal, buccal, and other mucous membranes of the leper are positive sources of danger to the non-infected; that isolation of lepers is the best safeguard of the community; and that the serum treatment of the disease, practised by a few experiments, has thus far proved worthless. The apparently partly successful experiments of one of our colleagues with antivenene are not without interest. With respect to prophylaxis, it is significant to note that

the charges made by humanitarians against segregation, on account of the cruelty alleged to be thus inflicted upon the unfortunate victims of the disease in their enforced seclusion, have been shown to be, for the majority, without any weight whatever. In some of the leper settlements the inmates enjoy a life which would be impracticable in the world outside, except for persons of large wealth. Enjoying, thus, a salubrious climate, an abundance of fresh air, and opportunities for cultivating the field and the garden, with their fears of discovery and dread of persecution set aside, life is without question thus prolonged and a maximum of happiness secured. It is interesting to note that in Dr. Abraham's full report of the disease as it exists in the British empire (*Brit. Med. Jour.*, November 13, 1897), although a certain number of cases are always to be encountered in Great Britain and Ireland, there is as yet no establishment in that vast and wealthy kingdom where sufferers from leprosy and other chronic and disfiguring diseases of skin may be cared for. Two English patients actually have been forced to leave their country in order to seek an asylum in the St. Louis Hospital in Paris.

If ever the day comes when it is possible to properly care for the American leper, I am confident that some of you will agree with me in trusting that some occupation, some means of support, and a reasonable degree of seclusion from the eye of the world, may be secured for a number of patients who annually apply to us for relief of disfiguring diseases, of the face especially, who are able to enjoy life and to do labor in many capacities, but who are regarded as social pariahs by the public with whom they are obliged to come in contact. They are refused employment, and even avoided with all the signs of aversion when there is a prospect of the slightest personal association. I refer chiefly to the poorer class of patients affected with lupus erythematosus, some with lupus vulgaris of the face, a few also exhibiting the signs of other diseases. The French have set us a notable example in their employment of these sufferers, for the most part wholly unable to communicate their disease to others, in the service of the St. Louis Hospital in Paris. I have vainly tried to secure service for some of these unfortunates in our hospitals at home, where the neatness and comeliness of the average trained nurse places the unwelcome attendant with an unsightly visage at an enormous disadvantage. Many a man, affected with a tuberculous leprosy, exhibiting inconspicuous tubercles about the brow and lips, may be far less dreaded and lead a life of less intolerable anguish on account of social ostracism, than some young girls in our large cities suffering from an inoffensive and incommunicable facial lupus.

While the doctrines once held on the subject of the heredity of lepra have been greatly shaken by acceptance of the bacillary origin of the disease, it is noteworthy that in the last year the inheritance, or more properly speaking, the congenital genesis, of tuberculosis seems to be securing a broad foundation. Tubercle bacilli have been discovered in the testes of tuberculous patients without other urogenital symptoms: artificial tubercu-

lization of the placenta of guinea-pigs has resulted in the birth of tuberculous offspring. Congenital tuberculosis may be, in fact, set down as on the verge of actual demonstration. As yet none of the several forms of tuberculosis now recognized in the skin has been discovered at birth. It is, however, probable for the small group of ascertained cases thus far recorded, that the bacilli demonstrable and latent in a lymph-gland, a lung focus, or a bone dépôt would become potent as disseminators of the disease only at a period long after birth. In this light, may we not ask whether some of our conceptions respecting the origin of lupus vulgaris in children should not be corrected? Is it not possible that the source of the disease has been, in some instances, by congenital genesis rather than by so-called transmission directly from a parent or neighbor? I am impressed with this from personal observation of infected children with typical lesions whose parents also exhibited the disease, when the latter stated that the children developed the disease soon after birth.

During the year last past no fewer than 278 new remedies have been placed on the druggists' and chemists' lists. Of these a few were for dental and photographic purposes; the larger number were devised for the purpose of being swallowed in the hope of securing relief from disease; and of this number not a few were designed to rid the sufferer from affections of the skin, both by ingestion and external application. Surely, not the least of the important offices of an Association like this, operating through the influence of its educated membership, is to enlighten the public in the matter of their too easily accepted delusions. We may well ask if there is any body of men treating disease who are more often confronted with the prejudices and errors of ignorance than physicians who concern themselves with cutaneous maladies.

We live in a land where the purveyors to this artificially created and health-endangering habit of promiscuous drug-swallowing have amassed millions of money, a large part of their gains being lavishly expended in polluting the columns of the daily press, and in subsidizing the influence of men often having a petty official or social position. Persons claiming to be members of our profession have, with this expenditure as a basis, achieved notoriety by the endorsement of a pill, a potion, or a salve. It has been charged against us that many of our women chew gum; that some of our men chew tobacco; that enormous numbers of both sexes swallow deleterious drugs, solely at the bidding of an advertiser. Who shall have the courage, who can secure a hearing whereby to denounce the filthiness and harmfulness of these practices? Surely the time is near when at least representative bodies shall affix a stigma of opprobrium upon the man claiming to be a physician who sets the seal of approval upon the flamboyant pages of the *nostrum-vender*!

The education of the public, in fact, with respect to the preservation of health, is one of the duties of the trained physician, which he has in the past discharged with less fidelity than was to be expected. The result has

been that he has left the field largely to the charlatan, who has farmed it, and reaped the greatest possible harvest for himself, and with a maximum of damage to the commonwealth. Let us hope that with the coming of a new century this Association may secure needed aid in the right direction from some of our wealthy countrymen, willing to have their names perpetuated more honorably than in tablets of brass, by establishing, under the direction of this Association, a foundation for an annual course of lectures to be delivered successively in the larger cities of the United States and Canada. Such a course of lectures might in turn be directed to the needs of the expert, to the requirements of the general practitioner anxious to be more familiar with the problems of dermatology, and to the enlightenment of the general public on many of the questions about which they are solely instructed to-day in the advertising columns of the daily papers. In order to be capable of receiving such a foundation or bequest, this Association would probably have to be incorporated, and at no distant date it will be worth considering whether this preliminary step would not be judicious and advisable.

My distinguished predecessor in this chair called your attention one year ago to the fact that our Association at that time having attained its majority was holding its twenty-first meeting. In this connection, may I refer to the interesting fact that our Committee on Statistics presents us this year with tabulated returns showing the results of their work after twenty-one years of patient and careful collation of these important data. The result measures to a degree the clinical experience of our membership during the period named. More than 300,000 patients have been examined and treated, a number larger than that representing the entire population of the District of Columbia, and larger than the population of either San Francisco or Cincinnati. Of this number more than 84,000 were treated for eczema; more than 33,000 for syphilis; more than 25,000 for acne; about 10,000 for the several varieties of pediculosis; and more than 10,000 for diseases produced by the vegetable parasites. There were 9000 cases of psoriasis, and 3000 of zoster.

Of the rarer dermatoses there were but 3 cases of actinomycosis of the skin; but 2 of equinia; 9 of rhinoscleroma; 4 of melanoderma progressiva lenticularis; 4 of myoma; and 2 of sclerema neonatorum.

Of disorders not conspicuous for either their frequency or rarity there were between 1000 and 2000 cases each of lupus erythematosus and lupus vulgaris; 600 of pityriasis maculata et circinata; nearly 900 of urticaria; over 7000 of the several forms of impetigo; more than 1700 of carcinoma; more than 8000 of alopecia in its various manifestations; and more than 6000 of dermatitis of all forms. This item, if added to the figures representing the frequency of eczema, gives a total of more than 90,000 cases of these two conspicuous members of the group of exudative affections.

Even a cursory glance at these tables conveys to the mind a hint of the skill, fidelity, patience, and devotion to dermatology cultivated throughout

these years by the members of our Association. We point to these data not with a view to exaltation of the record made in the past, but rather to gain encouragement for a future to be still more assiduously devoted to a field whose promise in every branch of histology, bacteriology, pathology, etiology, and therapeutics is equally rich and attractive for the student of science.

In connection with the subject of the collection of statistics of cutaneous disorders in this country and Canada, it is not without interest to compare some of our collated facts with those established abroad. For the purpose of making such a comparison, even on a limited scale, I have set side by side in a table 500 consecutive cases of diseases of the skin occurring in men, women, and children in the out-patient service of public clinics in each of four cities; namely, Paris, New York, Boston, and Chicago. The superb clinical facilities of the St. Louis Hospital in Paris are unequalled in Europe in point of the number of dermatoses daily presented for observation. The figures were collected there by myself, though the diagnoses are those of the physicians of the St. Louis in attendance. The figures from New York and Boston I obtained through the kindness of our members, Drs. Bowen and Jackson.

On first glancing over these tables one is struck with the obvious fact that within certain variations the dermatologist in all parts of the world has very nearly the same problems presented to him. Given two thousand cases of skin disease and it is apparent that he will encounter everywhere nearly the same proportion of cases of eczema, syphilis, and acne; and that the rarity of many of the rarer disorders will be represented for each by nearly the same ratio.

Studied somewhat more in detail, however, one is surprised to note here that variation in the character of the tabulated disorders is decidedly greater in America than in France, if but five hundred cases be accepted as a type of the vastly greater number seen yearly in these countries. Thus, in the group of 500 cases seen in New York there were 58 different dermatoses; in that of Boston 54; in that of Chicago 48; in that of Paris but 46. These facts, if they point to any trustworthy conclusion, would suggest that in the face of the well-recognized diversity of occupations among the French people, a diversity illustrating their high attainments in the arts of civilization, and furnishing a long list of what they term "professional" dermatites far larger than any recognized by us, still for the most part their people who apply at public charities are subjected to a uniformity of environment presenting the widest contrast with the varied life of the same class in America. Nor should it be forgotten that the singleness of nationality which is such a conspicuous feature of public clinics in Europe is wholly wanting in the heterogeneous character of the clientele of our American dispensaries.

Further, the list of rare disorders tabulated in Paris is smaller than in each group of 500 cases observed in the American cities. On the French list appear: one case of erythasma, two cases of pompholyx, and two of acne

varioliformis, none of which chanced to be seen in any of the American cities tabulating 500 dermatoses; yet, on the other hand, Boston reported one case of lymphangioma, one of sarcoma, two of purpura, one of elephantiasis, one of actinomycosis, and one of dermatitis herpetiformis. New York reported one of angioma, one of xanthoma, two of dermatitis herpetiformis, and one of *nævus fibrosus*, while Chicago reported one of *keratosis palmaris et plantaris*, one of *erythema nodosum*, one of *dysidrosis*, one of *purpura rheumatica*, and two of *kerion*, not any of these affections being represented on the Paris list. In this connection it is interesting to note that, in the land where so many women after middle life exhibit fairly well developed mustaches, no patient of the French 500 applied for relief of *hypertrichosis*, though in the land where the modern effective treatment of this anomaly was originated and perfected, there were, both in New York and Boston, women among the 500 seeking relief for this special unsightliness.

It would have been marvelous to our fathers in medicine of forty years ago, to be told that the day would come when among 500 consecutive patients at a clinic for skin diseases, Paris should not lead in the item of syphilis. But while Paris has been growing older, it appears that the restless and comparatively lawless residents in the centers of western civilization, to-day incur to a far greater degree than do the residents of the French metropolis, the perils of this special infection. Of the 500 cases in Chicago no fewer than 170 represented the victims of this disorder, with but 114 in Paris, 46 in Boston and 33 in New York. As throwing further light on the character of these patients with respect to the settled or unsettled state of the community, there were more than four times as many male as female patients in Chicago, while in Paris more than half of the patients were women, and in New York, for some odd reason, the sexes were nearly equally represented in the list.

Again, though the Paris statistics were accumulated in the cool weather of the autumn, and the American figures in the similarly cool weather of early spring, in all inflammatory affections of the type represented both by *eczema* and the several varieties of *dermatitis*, the Paris figures were excelled by each of the American cities in the order of Boston, New York, and Chicago; Boston reporting more than double the number of cases of *eczema* seen in Paris among the 500. One of the surprises in this comparison relates to *alopecia areata*, Paris reporting in equal numbers of the two sexes nearly double the number of all the American cases, which might possibly be construed as an argument in favor of the parasitic nature of the disorder, seeing that Paris reports also the larger number of cases of affections due to the presence of the vegetable parasites as well as in considerably larger proportion an excess of cases of *scabies*, 36 to 43 of the American cities combined.

Chicago offers in the 500 the larger number of cases of *lupus erythematosus* and of *lichen planus*, with oddly enough, a case of *pityriasis rubra*

pilaris, where Paris, which might be regarded as the home of this special disorder, tabulates none. New York excels in the number of cases of lupus vulgaris, in the group of sebaceous-gland affections, in seborrhoic eczema, in psoriasis, and in a few other of the exudative disorders. One is scarcely surprised to read in these tables the story that is told by the pruritus figures. More than one-half of the 45 cases are reported from Chicago, a northern city, by its great cold lake, whose temperature-changes, especially in the spring, illustrate the severest vicissitudes of our American climate; while Paris is represented by the next larger number, the result being due less to the climate than to the alcoholic habits of the patients, and their wretched neglect of the simplest laws of hygiene.

On the whole, the results of this comparison, even though made on a limited scale, are sufficient to indicate clearly that the clinical field for the study of dermatology in our country is in a high degree satisfactory, and that with increased laboratory facilities the day is not distant when American students will no longer deem it requisite to pursue a course of foreign study in order to perfect themselves in this branch of medicine.

During the last year we have been called on to mourn the loss of one of our members, Dr. R. B. Morison of Baltimore who was honored with the Presidency of this Association in the year 1893. Dr. Morison was held in high esteem among us both as a friend and dermatologist. In view of this event you will doubtless appoint a committee and draft resolutions of condolence to be spread on the records and submitted to his bereaved family.

In the autumn of 1897 I visited Montreal in order to attend, as your representative, with six other members of the Association, the first meeting of the British Medical Association held on this side of the water. It is scarcely necessary to say that I received the courtesies accorded to the Presidents of other American medical societies in attendance by invitation of the British Association. In this connection it is worthy of record that in the hour, when the sentiment of the two countries so largely inclines to a closer political union between Great Britain and America, our Association was not only early in admitting to its membership our brethren in Canada, but also in holding one of its important meetings on British soil.

While touching on the subject of foreign dermatologists, I am reminded that an official invitation was extended to us by the German Dermatological Society for their reunion in 1898. Unfortunately, the date of their meeting coincided very nearly with that of our own, but advanced public notice was given of the fact of the invitation, for the courtesy of which our German confrères were cordially thanked. With them we mourn the loss of Professor Ernest Schwimmer, who, apart from his valuable contributions to science, endeared himself personally by many delightful traits to those of our members who have attended the meetings of the International Congress of Dermatology. Professor Schwimmer's name is written high on

the list of the men in our department of medicine who have achieved a world-wide reputation.

I beg leave to urge upon your special attention the request of the Committee on Classification and Nomenclature. However divided in opinion, we may be as to the practicability at this date of arranging a satisfactory classification of diseases of the skin, the pressing need of a proper nomenclature is everywhere apparent in our speech and writing. On the basis of my experience in this body, I am convinced that the adoption of a satisfactory nomenclature cannot be attained in an open meeting. The sole practicable method is the endorsement or correction of the conscientious work of a competent committee by the aid of a voting-list delivered to each member outside of a meeting. The printed report distributed by the Committee should be at once utilized for this purpose by each member, by submitting the printed list corrected according to his personal view. In our combined returns for twenty-one years there are more than nine thousand unclassified items, this number representing, first, a reasonable proportion of diseases whose names are not represented on the regular list; next, an unreasonable number of names which might much better have been passed over in favor of the title appearing on the printed list; lastly, a small number of disorders not named on the printed list which lie on the border-land of dermatology, some of them unquestionably having no place in its legitimate domain. Have we not, some or all of us, exhibited a species of narrow provincialism in our choice of dermatological titles? Have we not preferred one title to another more widely accepted, not because the former is more correct from a scientific point of scrutiny, but because our own is merely that most often on our own lips, or on those of our friends, and one which makes its rival sound strange and unfamiliar?

Permit me, in closing, to call your attention with added emphasis to the appeal made by my predecessor in this chair with reference to the annual gallery exhibition, the fourth of which we hope to enjoy before the close of this meeting. With each succeeding year we have been learning the lessons which have been brought home with distinctness to scientific bodies in other parts of the world, that papers which are probably to be printed and thus made available for reading or reference in the library of the physician, need rarely be read in full to an educated audience. The Council has this year limited the time to be devoted to the reading of a single paper to twenty minutes. I see no reason why eventually this time may not be reduced to fifteen minutes, or even to ten. The benefit to be derived from our meetings is first, through discussions; second, through clinical demonstrations; third, through inspection of drawings, photographs, paintings, models, sections of tissue, cultures of micro-organisms, etc.; fourth, by the hearing of papers. Each of these several methods of mutual help has its distinct value, but it may well be questioned whether we can afford to employ one to the neglect or even the exclusion of another. Let us, therefore, hope that the annual gallery exhibition may always hereafter

make a large demand upon the time allotted to our sessions, and that in selecting the time and place of meeting in the future, we may bear in mind that a few days in summer by the sea, or in the mountains, however delightfully employed, may not prove as profitable in the end as the same hours of work in one of the cooler months of spring, when in near proximity to a large center of population.

SCIENTIFIC SESSIONS.

FIRST DAY—MAY 31ST.

Hydroa Vacciniforme?—By DR. J. C. WHITE.

The author presented a series of cases and photographs. He said that the eruption appears after a walk in the open air, or exposure to the burning sun. It is generally agreed that it begins between the first and second years of life, almost exclusively in boys, and chiefly in the spring or summer after exposure to the sun. The eruption consists of small and large vesicles, which coalesce to form bullæ, on the face, hands, and other parts, thus giving rise to an appearance somewhat resembling vaccinia. It has been known to appear in girls as late as the tenth year. Dr. White reported its occurrence in a girl of ten years, and stated that in this case there was a cessation of the activity of the process during the warm months. The noteworthy features were its extensive distribution over the arms and legs, the magnitude of the subsequent cicatrices, and the great disfigurement. He thought the more these rare forms of bullous diseases are studied, the more difficult it becomes to sharply define them.

DISCUSSION.

DR. J. C. JOHNSTON said regarding eosinophilia in bullous affections, that a great deal of work had been done in this direction recently, which had led him to believe that these observations are almost worthless and have thrown little or no light on the pathological condition. Neither have they elucidated to any extent the etiology or the treatment. Eosinophilia has been found in bullous erythema, in dermatitis herpetiformis, and in the case of impetigo herpetiformis recorded by Dr. Fordyce last year. Of course, in time, when the function of the cells is better understood, these observations might be of some value, and hence in reporting this class of cases it would be well to add a note on this point, if only a negative one.

DR. HARDAWAY referred to the case of a girl, the daughter of a physician, and otherwise healthy, who had what he took to be a hydroa vacciniforme. When he first saw her she was about twenty-three, and the affection occupied the face and had led to considerable scarring. The appearance of the lesions was totally uninfluenced by the season, or by heat or cold—indeed, nothing seemed to have any special influence upon it.

DR. KLOTZ said that he did not understand how a bulla could leave a depressed scar; in order to produce such a scar there must be present in the tissue underneath the bulla a more important change, of which the formation of the bulla is only an incidental part. It, therefore, was a misnomer to designate such an affection as a bullous eruption.

DR. T. C. GILCHRIST of Baltimore suggested that in the next case coming under Dr. White's observation cultures be taken from the vesicles.

DR. WHITE replied that they had been.

DR. GILCHRIST said, regarding the duration of the affection, that they had an exceedingly typical case of herpes iris at the Johns Hopkins Hospital, which had lasted continuously for five months. He agreed with the last

speaker that the blood examinations at the present time do not give very much help in dermatological cases and are confusing in their results.

DR. W. T. CORLETT said that he had been much interested in the admirable description given by the reader, although the photographs, he thought, gave one an imperfect idea as to the nature of the disease. He was very strongly impressed with the marked similarity between the photographs shown and cases of xeroderma pigmentosum (Kaposi) which he had seen on two occasions with Dr. Brayton of Indianapolis. The statement was not offered as a criticism as to the diagnosis, for in the cases referred to there were no bullæ present, nor had there been, he believed, during the course of the disease.

DR. L. A. DUHRING said that he had been deeply interested in the paper because it brought up matters about which we knew very little at the present time. It seemed to him that we were becoming more and more confused about this disease, chiefly because other cases had come up and had been grouped under this head, which formerly would not have been placed there. It might be of interest to state that he personally had seen very little of this form of disease. Ever since the first description of the disease he had seen very few cases that suggested even a likeness to it. He had been struck by a report of two cases made to the Association some few years ago by Dr. Graham. Both of these had seemed to be typical cases, and were influenced by the seasons. It was his impression that this disease was largely a disease of seasons, and especially of summer. This view was put forth by the early reporters. Most of the typical cases had been confined to the summer season. On the other hand he had met with cases very infrequently which would possibly have been considered by some observers as deserving of being grouped with this disease. He recalled a case seen many years ago—a boy aged ten or twelve years—occurring in the family of a friend. This boy showed small blebs, the size of a large pin-head or small split pea upon the backs of the hands and on the face. They were not accompanied by any inflammation, and were not herpetic in appearance. They reappeared from year to year, in the summer. They were tolerably numerous, irregular in form and size, and differed from the well-known blebs of other vesicular or bullous diseases. The eruption lasted a number of years. It was interesting to note in this case that most of these small superficial blebs left scars. This case had been seen on several occasions, he believed, by one of the members of the Association, Dr. Van Harlingen. He believed it was very rare for scars to follow vesicles or blebs. Dr. White had remarked that true scars are indelible. To this he could not subscribe unconditionally, for he had occasionally seen lesions that most physicians would designate scars disappear after a time. He had not met with cases of dermatitis herpetiformis which suggested the "*eruptio æstivale*" of Hutchinson. He could hardly conceive, in ordinary cases, of the two diseases being confounded, and the disease which Dr. White had described, it seemed to him, had but very little in common with dermatitis herpetiformis. The diagnosis in dermatitis herpetiformis seemed to him, in most instances, to be rather easily made. It was not so, however, with hydroa vacciniforme.

DR. J. T. BOWEN of Boston said that he thought the pathology had been pretty well worked out. He had personally had a case which was examined microscopically. In all of these lesions there would be found a distinct necrosis of the fibrous layer. First, there was the vesicle, but soon necrosis was produced in the corium. He fancied that in all these cases, in which scars follow bullæ, such a necrosis occurs. That was certainly true of the typical cases of hydroa vac. iniforme. This affection does not seem to be

so rare in Boston as in Philadelphia; he had seen at least four or five typical cases within the past few years.

Regarding other bullous eruptions having considerable likeness to hydroa vacciniforme, the speaker referred to a case of congenital bullous dermatitis, with bullæ appearing chiefly at the site of the joints—elbows, knees, and wrists. The patient was a girl, and these manifestations had recurred from shortly after birth. In this case, just as in hydroa vacciniforme, the bullæ were followed by scars. Unfortunately, a histological examination could not be made, as the child was nervous, and the family would not consent to excision of the lesion. He could not agree with one of the speakers regarding the confusion which exists with regard to the bullous affections; it seemed to him that we were breaking up the old notion of pemphigus, a term under which almost all bullous affections had been loosely grouped, and were at least beginning to study the various types.

DR. WHITE said regarding hydroa estivale or vacciniforme, that the two types seemed to run into each other. In a series of cases published by any one writer, it would be found that it did not occur in the summer exclusively, but might occur at any season and at any age; hence, the term “æstivale” was too limited, and was not appropriate. He could not make the diagnosis as easily as could Dr. Duhring and his students, apparently. He knew of no more puzzling or protean affection in all its forms. Those who formerly called the disease “æstivale” now admit that it may occur at different seasons, even in the same patient.

A Recurrent Bullous Eruption Limited to Certain Areas, Supposed to be Dermatitis Herpetiformis.—By DR. W. T. CORLETT.

The case reported was that of an adult, seen on October 2, 1897, who had an itching eruption on the inner surface of the thighs and ulnar surface of the forearms. The eruption made its first appearance on the arms in July, 1894, and the present attack was the seventh. There were slightly inflamed areas of skin on the ulnar regions of the forearms and inner aspect of the thighs, corresponding to the distribution of some of the nerves of that region, *e. g.*, the internal cutaneous and obdurator. The cutaneous lesions comprised papules, small tubercles, vesicles, a few pustules, and numerous vesicles. The blood and the contents of the bullæ were not examined. The chief points of interest were: (1) The multiform character of the lesions, with a preponderance of the smaller bullæ; (2) the intense itching; (3) the limitation to certain areas; (4) the recurrences; and (5) the complete immunity for upward of seven months.

DISCUSSION.

DR. DUHRING said that the case did *not* seem from the description to present many of the features of dermatitis herpetiformis. The statement had been made that the lesions had been followed by scales, yet true scaling seemed to him almost sufficient to exclude that disease. He could not recall any case of dermatitis herpetiformis in which there had been notable, distinct scaling. The case presented was one of those rare instances of bullous disease seen from time to time which are difficult to classify.

DR. J. ZEISLER said that in the last few years he had been able to diagnose dermatitis herpetiformis with absolute certainty. To his mind, dermatitis herpetiformis is very strongly characterized and is easy of recognition when once one has learned how. The preponderance of bullous and urticarial lesions, and the favored location are important. On these grounds he would hesitate to accept the case presented in the paper as one of dermatitis herpetiformis. He had never seen a case of this disease in which it

affected the inner surface of the thighs. It is found on the back, then on the hips, then in the knee-pits, etc. These places are always the seat of recurrent eruptions.

DR. J. A. FORDYCE said that the localization of the lesion along the nerve-tracts would point to the fact that it might depend upon certain changes, such as a peripheral neuritis, or some central trouble rather than dermatitis herpetiformis. He had recently had a case of vesicular eruption of the forearm in connection with alcoholic neuritis, and also a case of recurring bullous eruptions on the hands and arms and mucous membranes of the mouth in an epileptic. In the latter case the cutaneous manifestations may have been due to the central trouble.

DR. WHITE said he thought we knew too little of the pathology of cases known as dermatitis herpetiformis to rule out the case under discussion. It seemed to him that this case, and others which would present themselves in the next twenty years, would show that we could not accept a narrow definition of dermatitis herpetiformis, or else we must invent a half-dozen more names. He, therefore, believed in calling it "multiformis." At present the title is very convenient, but it must be taken in a very broad sense in the present state of our knowledge.

DR. H. W. STELWAGON said it was well that attention had been called to the fact that we could not exclude dermatitis herpetiformis in the present instance because of the pathological condition, for we know nothing of the etiology or pathology of the disease, and he saw no reason why the case reported by Dr. Corlett might not be one of dermatitis herpetiformis. He had had a case in which the eruption was strictly limited to the trunk. It extended posteriorly from the neck to the buttocks, and within several inches of the median line, and with a similar distribution over the sternum. The symptoms were those of a classical dermatitis herpetiformis of the vesicular type—the grouping, the behavior of the lesions, the chronicity of the disease, and the itching all went to make up the picture.

DR. HYDE said he wished to commend a statement made by Dr. White, *viz.*, that the latter *preferred* to call this disease multiformis, although still calling it herpetiformis, and he did so because this was in accordance with the rules regarding acceptance of the nomenclature of the Association.

DR. CORLETT, in closing the discussion, said he feared his description of the scales left after the subsidence of the active inflammation might have been somewhat misleading. The whole surface of the parts involved was not scaly, but the individual lesions as they disappeared became dry and slightly scaly.

DR. DUHRING remarked that he had understood the original statement regarding the scaling.

Trophic Dermatoses Following Fractures.—By DR. J. ZEISLER of Chicago.¹

This paper was the result of a strange observation reported as long ago as 1832, to the effect that the toe-nails begin to grow at the time of the consolidation of fractures of the lower limbs. Dr. Zeisler said that having been unfortunate enough to sustain a fracture of the thigh himself on August 6, 1896, he had determined, if possible, to demonstrate the truth or falsity of the observation just quoted. He found that in his own case the nails on the fractured side did not grow at all for six weeks, and that it was about ten weeks before the free border of the nails could be felt. He had never observed this arrest of growth previously. But, in his case at least, the resumption of growth did not mark the time when the fracture solidified, for up to the present time the fracture has not united. It seemed to him that

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the interruption in the growth of the nails was to be explained by interference with nutrition caused by bandages and other dressings. In April, 1897, there had appeared on the sole of the right foot a crop of small, firm vesicles, associated with intense itching, and becoming worse in the summer.

DISCUSSION.

DR. E. B. BRONSON said that he could confirm one point, *i. e.*, that in regard to an exaggerated susceptibility of any portion of the body that had been subjected to traumatism or serious injury. It was well known that eczema is especially liable to affect a limb which has been the seat of fracture. He had observed it frequently, and the configuration of the eczema was usually extraordinary. These cases were usually not very amenable to treatment. He recalled a case in which chronic eczema followed an injury to one of the bones of the forearm. The eczema was peculiar in the fact that the eruption showed bullæ. It was difficult to account for this peculiarity. Possibly there had been some injury causing occlusion of the lymphatics, and that through the enlargement of the lymphatics the bullæ resulted. It might, however, be due to some neuropathic change.

DR. F. J. SHEPHERD said that he had seen a very large number of fractures, but had never paid any attention to the growth of the nails. Eczematous lesions, of course, are very common following fractures, or the application of bandages. Certainly very few children escape the development of eczema under these circumstances.

Dr. Shepherd spoke of one curious case of ununited fracture of the humerus. There were herpetic lesions following the course of the musculospiral nerve. At the time of operation it was found that this nerve was compressed between the ends of the bones. After liberating the nerve the cutaneous manifestations disappeared. Bullæ were quite common after fractures, and often appeared at distant points. He had now in his wards three cases in which the presence of bullæ prevented the application of plaster of Paris. Some of them developed within twenty-four hours after the injury. He looked upon them as examples of trophoneurosis.

DR. DUHRING said regarding changes in the nails following shock and injuries, that he believed they were more common than was generally supposed, and he was not surprised at the results of observations noted in the paper. The forms of inflammation of the skin following fracture brought up a matter of considerable interest to him. The author very justly speaks of the varied lesions and dermatoses as vesiculosa trophoneurotica. He had seen quite a number of such lesions, and had studied some cases carefully in connection with Dr. S. Weir Mitchell. Personally, he was inclined to group these lesions under the head of dermatitis neuropathica, using additional adjectives such as "bullosa" and "vesiculosa" to describe the special conditions. They arise from varying causes involving nutrition, and their local manifestation is extremely varied. They do not necessarily arise from injuries.

DR. HARTZELL said that some years ago he had fractured the metacarpal bone of the right hand connected with the little finger. From the day of the injury, and for three or four weeks thereafter, the nails on that hand apparently ceased growing.

DR. ZEISLER said that he thought he was bound to contribute that much from his personal history for the benefit of the Association. He was positive that the cutaneous manifestations in his case were not eczema; they were distinct and isolated vesicles, occupying a definite area.

Two Cases of Melanocarcinoma, Primary in the Skin, One of

Them in a Negro; with the Pathology and Some Observations on the Structure of Moles.—By DR. T. C. GILCHRIST of Baltimore.

The first case reported occurred in a negro, who had become greatly emaciated, and who had a thousand nodules over the body, nodules in the liver, and probably elsewhere. Notwithstanding this extensive distribution of the lesions there were no enlarged lymphatic glands. A portion of one of the nodules (metastases) was teased and injected into the external jugular vein of a dog. The dog was killed after two months, although apparently in excellent health. The autopsy showed no pigment or other abnormalities in the lungs. The cultures from sterilized portions of the nodules were negative. The smallest metastasis was a nodule deposited in the subcutaneous tissue, and consisted of epithelioid cells. The pigment was not very noticeable in the first metastases.

The second case occurred in one of the hospital physicians. He was twenty-seven years old, and had a small mole on the left cheek, which he had first noticed seven years before. It very gradually increased in size. Finally, after scratching, it began to grow rapidly. It was excised, and sections of it exhibited distinct melanocarcinoma.

Dr. Gilchrist said that, according to the leading pathologists, moles are incomplete sarcomata—growths from the walls of either the lymphatics or the blood-vessels. Unna stands alone in saying that the structure of a mole is derived from the epidermis, and, therefore, is of epithelial origin. Dr. Gilchrist went on to say that he had excised a pigmented mole from the abdomen of a child, and several from adults. The mole from the child showed nests of cells in the epidermis. His own observations certainly confirmed this view of Unna. Since, therefore, the cells of the tissue forming the mole is of epidermal origin, a malignant growth in a mole is undoubtedly a carcinoma, and not a sarcoma. Dr. W. H. Welch concurs in this opinion.

As to the pigmentation, Dr. Abel has recently shown that the pigment in the negro is a very complex body, and that the granule remains after taking out the pigment. The separated pigment has been found to be free from iron. The conclusion is, that the pigment in melanotic growths, and in the negro's skin, is not derived from the blood from alterations in the protoplasm. Italian observers claim that the bodies found in cancer are blastomycetes, and are allied to the yeast fungus. But these bodies are not always present, and they are found in benign growths and many other lesions of the skin; moreover, no pure culture has been obtained from cancer, and it has never been possible to reproduce undoubted cancer from the supposed parasite.

DISCUSSION.

DR. C. W. ALLEN said that he wished simply to express his thanks for the instructive paper.

DR. DUHRING said that he had been struck by the frequent statement of the reader of the paper of the occurrence of "metastasis" in the first case reported. He did not favor the use of this term unless true metastasis could be proved. His idea was, from the description, that these were not positively metastases, but perhaps merely new local lesions. His idea of a metastasis was that the process leaves one part of the body and attacks another part. Now the fact that new lesions occur in one locality after another doesn't mean that they are metastatic. He had photographs of almost identical cases which were diagnosed as cancer by several surgeons, as well as by himself. They occurred in white persons. There seemed to be good reason for believing that moles are epidermal in character rather

than arising from the deep structures. He was somewhat surprised to hear it stated that so many pathologists were inclined to take a different view.

DR. SHEPHERD said that he had seen at least six cases of melanotic sarcoma of the skin, two of them following irritation of pigmented moles. One case was that of a woman in whom the growth developed as a result of irritation of a mole by a corset. He excised the growth freely, but recurrence took place within six weeks, with secondary growths in the liver. In another case the growth had originated from irritation of a mole in the neck by a collar. In this case also excision was quickly followed by recurrence in glands of neck.

DR. HARTZELL said that it seemed necessary for many diagnoses of melanosarcoma to be revised because many of the cases were probably examples of melanocarcinoma instead of sarcoma. The view endorsed by Dr. Gilchrist was probably correct, but he would like to ask if cases of melanosarcoma had not been reported in which a mole had been the origin of the growth. He recalled one case reported in which melanosarcoma of the eyelid was followed by a sarcomatous growth on the conjunctiva, and which presumably arose by contact.

Another extremely interesting question is regarding the extreme malignancy of these melanotic growths. Surgeons regard the prognosis in these cases as particularly bad, for operative interference seems only to aggravate the condition.

DR. STELWAGON said that he was interested in the subject from the standpoint of treatment, and particularly as regards the hypodermic injection of arsenic. This treatment had been followed faithfully in a recent case, and although the dose had been increased and the treatment had extended over several months, the result had been entirely negative. In another case, the melanotic condition began in the side of the trunk, and in a few months had involved nearly the whole general surface in the form of tumors, varying in size from a small purpuric spot to tumors about the size of an egg. The mucous membrane of the mouth was involved in a flat, purplish infiltration, and later on there was probably involvement of the internal organs. The patient died about ten months after the first appearance of the disease.

DR. WHITE said that if we accept the dictum that pigmented moles cannot change into sarcoma, then, in the case of growths which he had known to be pronounced by competent pathologists as sarcoma, these pathologists must have been mistaken in their original diagnosis of "mole." It was quite possible that a mole might subsequently give rise to pigmented sarcoma; it would take more than a few cases to successfully oppose this view.

DR. FORDYCE said that he had been much interested in the development of pigmented tumors from moles since the appearance of Unna's original paper, eight or nine years ago, and he had taken occasion to excise some of these. In some of the cases the development of the melanotic tumor could be traced without doubt to the epidermis. In some of the pigmented moles the mole itself could be proved to be derived from the epidermis also. In certain other cases there appeared to be a mixed tumor; hence, we might have in some cases pigmented tumors from the epidermis, and in other cases tumors starting from the mesoblastic layer, and the observations of Unna and of other pathologists may both be correct. He was under the impression that the majority of primary pigmented tumors of the skin originate from the lowermost cells of the epidermis.

DR. JOHNSTON said that Dr. Gilchrist had spoken of the extreme difficulty of making microscopical diagnosis between endotheliomata and cer-

tain carcinomata. In some recent studies of fibroid sclerosis of the corpora cavernosa—really an endothelioma—he had found constantly a cell which he regarded as perfectly characteristic of the tumor, and furnishing an absolute differential diagnosis between that and carcinoma. This cell is of enormous size—often fifty to sixty times the diameter of a red blood-corpuscle. It has a homogenous protoplasm, its single oval nucleus shows the reticular network and is occasionally fragmented. He agreed with Dr. Fordyce that a sarcomatous mole might develop from the mesoderm, just as a carcinomatous mole might develop from the ectoderm.

DR. A. R. ROBINSON said he had seen three cases of this form of disease during 1897, and the diagnosis in his books was melanosarcoma, but he had not as yet studied the specimens obtained from these cases. He was inclined to agree with Unna's view of the origin of these pigmented growths, but if he remembered correctly the sections studied in a case of white moles, it was probable that the latter are derived from the lymphatic system and present no evidence of an epithelial new growth.

As to the use of the term "metastasis" by Dr. Gilchrist, it was a perfectly correct term, as all the cells in secondary cancerous growths are descendants of the epithelial cells from the primary tumor and therefore every such secondary tumor is the result of a metastasis.

As to the rôle of blastomycetes in the production of cancers, he has never been able to find such structures in secondary tumors, and he has examined a great many sections from many small secondary growths and cases of carcinoma *en cuirasse*.

DR. HYDE said that we had learned this morning that the term "pemphigus," which formerly included a large number of dermatoses, is now used very indefinitely. He would suggest that it was somewhat so in the case of sarcoma. In the case of the pathologists the error lay not in their recognition of the nature of the pigmented mole, but in their interpretation of the phenomena which they describe as sarcomatous. The word sarcoma has been used quite indefinitely in the past, and there were few present probably who would not now admit that multiple pigmented sarcoma of Kaposi does not belong to that category. We have observed entire recovery even after fullest development of the disease, showing that it is sometimes a benign growth. The multiple tumors springing from a pigmented mole had been largely recorded in the past as pigmented sarcoma, and we were therefore indebted to the author of the paper in limiting the term sarcoma. The phenomena must be studied much more fully.

DR. GILCHRIST closed the discussion. He said that metastases consisted of a part of the tumor lodged in another place, and then commenced to grow. He had seen the reports of Dr. Shepherd's cases, and in going over the literature of the subject had come across but very few cases which had been reported in this country. As to the structure of moles, he said the reason that such eminent pathologists had described them as sarcoma was that they had never entered into the genesis of the tumor, as Unna had done. The cells in the adult are endothelioid in character, and are indistinguishable from the cells lining the vascular system, but in following out the genesis of the tumor it would be seen that they are of epidermal origin. As to the prognosis, it should be said that early and complete excision of a mole which shows any tendency to malignancy or has become irritated will cure a case, if there is not already any metastasis. The enormous cells referred to by Dr. Johnston are often seen in carcinomatous growths, and are really giant cells. He had not examined any white moles, and so could express no opinion. There could not be a mixed tumor as all the cells in the mole are of epidermal origin.

EVENING SESSION.

The So-Called Premycotic Stage of Mycosis Fungoides---A Contribution to Our Present Understanding of This Disease.
—By Drs. J. N. HYDE AND F. H. MONTGOMERY of Chicago.

The report is based on 44 cases, occurring in 21 men and 11 women, of an average age of forty-five years. The duration varied from a few months to twenty years, and the symptoms were quite diverse. In 32, there was intense itching; in 28, erythematous redness, occurring in patches, more or less defined; in but six was there effusion of serum; in 5, there was crusting. The patches were of various shades of red. The patients are usually quite stout, and they often suffer from intense pruritus for a number of years. The authors did not consider it warrantable to draw definite conclusions as yet, but they thought the facts already known afforded good grounds for the belief that in the early stage of this disease there is a fungoid process which should not be confused with eczema, etc., and that it is highly probable that histological examination of the lesions will go far toward establishing the diagnosis.

DISCUSSION.

DR. FORDYCE said that in one case observed by him the microscopical findings corresponded closely with those reported by Drs. Hyde and Montgomery—the hypertrophy of the epidermis, the character of the cells, etc.—still, he would hardly feel like making the diagnosis of mycosis fungoides from the microscopic picture alone. Just what the disease is; whether it is a form of lymphatic affection of the skin or some form of granuloma he could not say. It was probable that it belonged to the group of granulomata.

DR. DUHRING said that he had been struck with the fact that so many observers had alluded to the similarity of the earlier symptoms to eczema. He could not say definitely how many cases of this disease he had seen, but in very few of those he had observed in the early stage—or in fact of any stage—had the diagnosis of eczema occurred to him. In his cases, while there had been itching in some, manifestations similar to those of eczema were not prominent, and that diagnosis would never have occurred to him. In the paper it was stated that in all but two of the cases referred to the similarity of the lesions to eczema was marked, and other writers on this topic he was well aware had made the same statement.

Regarding the condition of the cells the speaker said that in the few cases which he had carefully examined he had been struck with the regularity of the size, shape, and general character of the cells, which was in that respect much like that of small round-cell sarcoma. He had also been struck with the observation that the epidermis had not been much involved. The disease as it affected the epidermis appeared to be variable, and to be dependent largely upon the stage of the disease, and in his several cases he had been struck with the absence of primary involvement of the epidermis, the disease being distinctly one of the corium. In several of the cases the mucous membrane had been obviously involved. About twenty years ago he had brought such a case before this association. In this case the walls of the bladder were involved with distinct patches of infiltration.

DR. HYDE asked if there was a tumor of the bladder discovered post-mortem in that case.

DR. DUHRING replied that there was a large flat tumor or infiltration present in the bladder.

DR. WHITE said that he would show on the last day of the meeting photographs of similar cases. Within a week he had seen at the hospital

a woman who had been treated for eczema for several months a year ago, and who now appeared with similar manifestations of the skin. This made a group of three cases seen by him in a comparatively short time. The striking feature in one of the large photographs that he would show is the vitiliginous condition of the skin. This is spoken of by several reporters of these cases. This vitiligo change occurred in one of his cases thirteen years previously, and there were no further manifestations until three years ago. Since then the man had been in a continual state of premycotic hyperemia. These three cases were in a prodromal stage of something. The fact that they simulate in some respects the earlier cutaneous manifestations of leprosy would seem to indicate that they are of a similar nature, and yet the anatomy of the skin in the case to which he had alluded would raise the question of sarcoma.

With regard to the absence of pruritus he said that in none of the three cases had pruritus been a notable symptom, except occasionally in one of them. His cases differ, therefore, in the presence of pigmentary changes, and in the absence of the subjective manifestation of pruritus.

DR. GILCHRIST mentioned a case of mycosis fungoides seen in the Johns Hopkins Hospital. It first came under the charge of the surgeons, and was treated with Coley's fluid under the assumption that it was a sarcoma. The toxins was injected, and the temperature rose to 104° F., and the large tumor on the back decreased about one-half. It increased again, however, and the experiment was considered rather dangerous, and was discontinued. The practical result was looked upon as negative.

With reference to the sarcomatous nature of these nodules, he said that the nodules which appear and disappear could hardly be looked upon as sarcoma; it was much more probable that these nodules were infective granulomata.

DR. VAN HARLINGEN said that it was hardly exact to call the appearances eczemiform, because in carefully observed cases it is evident that the affection is not eczema; the appearance is very like that seen in the early stage of Paget's disease of the nipple. It was only eczemiform to the superficial observer. In one case seen with Dr. Duhring he had noticed that appearance of vitiligo, but this had not been dwelt upon in many of the cases reported.

DR. G. H. FOX said regarding the subject of mycosis that he could only speak from clinical experience. The statement made about its being in rare cases eczematous would lead him to think that his experience had been different from that of Dr. Duhring. Some years ago he had had an opportunity of studying two cases in the New York Skin and Cancer Hospital, and the appearance of the tumors was characteristic. In those cases, as well as in the three or four others, there were large marginate patches in the axillary and pubic regions, having a scaly surface almost precisely like a superficial eczema. The border of the patch, however, often had a fine waxy line suggesting the edge of a superficial epithelioma or rodent ulcer seen on the cheek or temporal region. In the majority of the eight or ten cases that he had seen, that appearance, which might be very readily mistaken for eczema, had been present. Pruritus is not always present, yet in the majority of the cases that he had seen it had not only been present, but had been one of the most striking features. The vitiliginous appearance he had seen, but not in the early stage. The term "premycotic" stage seemed to him poorly chosen. A distinction should be made between the early stage and the stage characterized by the formation of tumors, but these very same appearances which are seen at the very outset are also seen in later years when the tumors are numerous. He had seen recently a lady,

who had been under his observation for a year before he dreamed of the nature of the disease. If one could imagine a psoriasis from which the scales had been removed, he would get a fair picture of the case. There were infiltrated patches of erythema, markedly circumscribed, and distributed like psoriasis. There was intense pruritus. By improving the general health by the use of various medicines and local applications he had succeeded in ameliorating her condition, without producing any effect on the course of the disease. Marginate erythema was the only diagnosis that he could think of at the time. The case proved to be about the most obstinate one from a therapeutic standpoint that he had ever seen. On the patient's return a year later there were some discoid patches which had become depressed in the center, and one or two small tumors had developed, making the diagnosis very clear at a glance. She was seen later by Dr. Crocker of London, who confirmed the diagnosis. In that case there was nothing suggestive of an eczema, but there had been patches suggestive of eczema in the majority of cases which he had seen. In one or two of his hospital cases arsenic was given in large doses, and given hypodermically. Sometimes the tumor would seem to disappear, but probably no more rapidly than they do spontaneously, or under other forms of treatment.

DR. SHERWELL thought the description given in the paper was a very classical one, and the verdict of the author a just one. In his experience there was in the later stages an erythema followed by eczema, attended with intense pruritus. He had understood Dr. Gilchrist to say that sarcoma could not retrograde under arsenical treatment. He could not accept that statement, because he had very frequently seen the administration of arsenic, of which Dr. Fox thinks so little, cause the disappearance of sarcomatous tumors. He had personally observed two or three extraordinary instances of this kind, and referred to a paper on the subject he had read at a meeting of the American Dermatological Association, 1892.

DR. C. W. ALLEN said he was reminded by a remark referring to the similarity of some of the cases of lepra, of a photograph of mycosis he had shown at the New York Dermatological Society last winter. The appearance was so like that of leprosy that this diagnosis had been made by a number of men and he had been asked to go to a neighboring city and see the case as one of leprosy. In the discussion of the case at that time it was learned that two of the members had treated the man in the premycotic stage, one of them being Dr. Fox. The case illustrated the difficulties of diagnosis in the early stages and also how difficult it might be to make the diagnosis even when it reached the later stage. The man's features were certainly those of a leper, and Dr. Morrow, who had seen a great many lepers, agreed with this opinion.

DR. STELWAGON said he had been surprised at the remarks made regarding the eczematous appearance. Four or five years ago he had reported a series of cases in which there were distinct eczematous manifestations, not only as a preliminary to the outbreak of the tumors, but even during the active tumor formation; there were outbreaks of appearances on the skin very closely resembling eczema. In looking over the literature of the subject he found that almost every reporter had dwelt upon the early manifestations of this disease as of eczematous aspect. As Dr. Fox had stated, so far as the early manifestations of the disease are concerned, the disease is often distinctly eczematous, so that it could not be distinguished at that stage from an ordinary eczema. He did not believe it was an eczema, however; he believed it was the first stage of the mycotic disease, whatever the character of that mycotic disease may be.

DR. S. POLITZER said with regard to the eczematous appearance in the

early stages of mycosis fungoides, that while there is no doubt that there are erythematous and pigmentary changes in one class of cases, in another class the occurrence of lesions suggesting eczema is extremely common, but not invariable. He had thought that in an affection which is so extremely pruritic there might be an association of true eczema accidentally implanted on this extremely irritated skin; that the eczema was not a part of the mycosis process, but merely a frequent accident. He had been greatly pleased with the paper because it was very important that careful examinations should be made in these cases. A disease which presents such a tremendous polymorphism and which is withal so very rare could only be studied as it were, in sections by different observers; but by careful study even in this way one would eventually obtain by synthesis a correct and complete picture of the disease. Most observers agree that there are great differences between sarcoma and mycosis fungoides, and he thought the most marked difference was in the great polymorphism of the cells in mycosis fungoides. In this disease there are changes constantly going on, whereas in sarcoma the growth is far more fixed in its histological appearance.

DR. P. A. MORROW said that he had treated about a half a dozen cases of this affection, three cases of which had been under careful observation for a considerable time. One of the cases had been treated for eczema in the Vanderbilt Clinic for about a year and a half, and the eruption had then presented all the characteristics of a frank eczema. No other diagnosis up to that time had been suggested or even thought of. Another case came under his observation three or four years before the tumor stage had developed, yet the eruption presented characteristics which were so different from eczema that he was enabled to differentiate it from that disease and identify it as the premycotic stage. Still another case was one in which, according to the history, there was no premycotic stage, but the tumors developed *d'amblée*. In the great majority of these cases, however, there is undoubtedly a condition of the skin that objectively suggests eczema, and the objective resemblance is such as to make no other diagnosis possible.

He might mention one feature of the first case, which has a slight bearing on the microscopical investigation of these lesions: a section was taken from these tumors and was reported by a skilled microscopist to present the characteristics of an epithelioma.

With regard to treatment, the speaker said that he had subjected one patient to inoculation of Coley's fluid—altogether about thirty-one injections. At first, there was apparently a marked improvement, but this might possibly have been due to the better care that he received in the hospital, and not to the inoculations, because he became very much worse before the completion of the inoculation treatment. In the third case he gave arsenic with apparently good results for a period of three or four months. There were constitutional symptoms of arsenic intolerance—slight conjunctivitis, gastritis, etc.—and he therefore discontinued the use of arsenic by the stomach and injected it in the immediate neighborhood of one of the tumors on the leg. This lesion was several inches in circumference. Very much to his surprise it almost entirely disappeared, but there was no general improvement, and after the discontinuance of the arsenic there was a redevelopment in that tumor as well as aggravation of the others.

Regarding the appearance of vitiliginous spots, he said that a photograph of one of his patients exhibited this feature in a very noticeable degree.

DR. HYDE called attention to the fact that the authors of the paper objected to the term "premycotic," as the title of the paper implied, *viz.*: the

"so-called premycotic stage." He believed the disease to be a pathological process from the first symptom to the last.

With reference to the resemblance of the dermatoses of its earliest stage to an eczema, he would say that it was not apparent in the two cases which were made the subject of the paper to any marked degree, but in the *résumé* of the literature of the subject it was very strikingly apparent. If we are to form conclusions by statistics, it can be stated positively that in a very large proportion of cases observed in America, England, and on the Continent, the reporters declared that they were unable to recognize any distinction between the phenomena presented and those of an ordinary eczema.

With reference to the point raised about the resemblance of mycosis fungoides to sarcoma, the subject was too large to discuss at length, but he would call attention to the obvious fact that to a greater extent than either carcinoma or sarcoma, mycosis fungoides is, properly speaking, a disease of the skin. We, as dermatologists, see only a small proportion of cases of sarcoma compared with the surgeons, for the reason that sarcoma usually invades other organs of the body than the skin. As dermatologists, we see only a few cases of epithelioma of the skin compared with the surgeons who treat carcinoma of the uterus and of the female breast. It was, therefore, a striking fact that mycosis fungoides is preeminently a cutaneous disease, and that its visceral involvements are remarkably few. The case reported years ago by Dr. Duhring is one of the very few exceptions in which there had been such a complication.

With reference to the occurrence of vitiligo as a symptom of mycosis fungoides, he said that the paper had been abridged and certain details had not been read. In the first case the vitiliginous appearance was distinctly marked. In the second case there was a characteristic pigmented ring surrounding the white area marking the spot where the tumor had been. With reference to the question of an infectious disease, raised by Dr. Fordyce, he did not feel like making any positive statements, but his personal convictions were strongly opposed to this view. This view was first set forth in Paris by Hallopeau, who assiduously attempted to show in one case on the inner side of the thigh, where a tumor had formed, that there had been a local infection, and from that point there had been a transmission of a virus through the system; but even he had abandoned the notion. There seemed to be little proof to-day of such infection of the general system.

The speaker also called attention to an interesting clinical fact in connection with the group of cases which had been summarized. Attention had been called by the reader of the paper to the fairly good health of many of these patients. The patients with primary sarcoma of the skin whom he had seen had been few, and they had been usually more or less cachectic. It was a striking fact that in the group of cases described in the paper the patients had been robust and fleshy, and in a large number of other cases reported, including that of Dr. Morrow, illustrated by a fine chromolithograph, the nutrition of the patients had been conspicuously good.

DR. MONTGOMERY closed the discussion. He said that Dr. Fordyce had spoken of the questionable utility of the microscope as an aid in the diagnosis. In the premycotic stage he thought a histological examination should be made when possible, as evidence was fast accumulating to show that the character of the infiltration in the early stage of mycosis fungoides differs from that of other erythemas or inflammations of the skin with which the disease in question is likely to be confounded. The description of the pathological process given in the paper was that of a very early stage. As the infiltration increases, the epithelium recedes before it. Before the

tumor stage is reached the rete becomes much thinner, and in the tumors proper it is frequently reduced to a mere line, though it may persist and send thin prolongations, which are occasionally branched or "festooned" down deep into the growth, the structures then suggesting that of epithelioma. As the lesions approach the stage of tumor-formation, the cells become more regular in size, shape, and arrangement, and the resemblance to sarcoma is more marked.

One object of the paper was to suggest the possibility of making an early diagnosis of the disease, from both the clinical and the histological appearances.

A Strange Case of Granuloma of Face and Extremities.—By DR. F. J. SHEPHERD.

Photographs and a brief clinical description were presented. The patient had not been taking bromids or iodids; the physical examination of the lungs was negative; fifteen or twenty sections from the face failed to show the presence of tubercle bacilli, but the patient had recently responded to the tuberculin test.

DISCUSSION.

DR. G. T. JACKSON said that from the photographs and the descriptions of the case he was reminded of two somewhat similar lesions that he had seen in patients who had been taking bromid of potassium. A few days ago he had seen one of these very rare bromid eruptions—tumors which after a while softened down and disappeared.

DR. ZEISLER said that he was strongly reminded by the photographs of a case which he thought the chairman had also seen—a case which occurred four or five years ago at the Cook County Hospital, in which several large tumors appeared on various parts of the body and on the face. The tumors very closely resembled those in the photograph just presented. There were tubercle bacilli found in this case, and the patient died shortly afterward from general tuberculosis. This point was especially significant in connection with the closing statement of Dr. Shepherd regarding his patient reacting very strongly to tuberculin, and also regarding the existence of knee-joint disease. In some cases the tubercle bacilli might be present in very small number, and might easily be overlooked by the examiner.

DR. ALLEN said that from the resulting ectropion, which is so marked in the photograph, he did not think that the lesions could have been possibly the result of bromid. He had seen very severe eruptions from bromids and iodids, but had never known one of them to leave such a marked scarring effect. He believed there were forms of tuberculosis of the skin which had not been fully described, and from the history of this case he thought the lesions on the face were possibly tuberculous in their nature.

DR. STELWAGON also thought the case was probably tuberculous, of the nature described as erythema induratum. He had never himself met with this form on the face, but on the leg the lesions were similar to those described in the paper.

DR. POLLITZER said that the picture presented by the reader of the paper would differentiate his case entirely from erythema induratum, which Audry has recently shown to be simply a chronic edema and fatty degeneration, without any relation whatever to any tubercular process.

DR. DUHRING said the photographs of the case reported in the paper had been kindly sent to him for inspection some time ago by Dr. Shepherd. In the light of the subsequent history the case was more clear than at first. He was now of the opinion that the case was probably tuberculous in nature.

Lesions of this kind unquestionably do occasionally occur in connection with tuberculosis of the skin, although they are rare. Another interesting point is that they occasionally disappear. Dr. Hyde would probably recall the fact that he had had under his care a few years ago a case of tuberculosis of the face and back. As the disease manifested itself on the face in that case it was very similar in character to the first photograph in Dr. Shepherd's case. The diagnosis was obscure at first, but similar lesions developed on the back on an enormous scale, and the patient died subsequently of general tuberculosis.

DR. WHITE asked Dr. Shepherd how long the two lesions existed on the face, and if the patient had taken any iodid of potassium.

DR. SHEPHERD replied that it had lasted about six months, and the patient had never taken any iodid of potassium.

DR. WHITE said that according to his experience tuberculous lesions of the skin of any size do not disappear spontaneously in this rapid way. He asked how many sections were made on the face to determine the presence or absence of tubercle bacilli.

DR. SHEPHERD said that he believed about fifteen or twenty had been made.

DR. GILCHRIST said this was a very remarkable case, both clinically and histologically. The structure did not present any features of tuberculosis, yet he was reminded of a case seen at the Saint Louis Hospital (Paris) which was diagnosed as a tuberculin eruption, meaning by that a lesion due to the toxic influence produced by the tubercle bacillus in the lungs. Further examination showed that the patient did really have pulmonary tuberculosis. In excluding tuberculosis in these cases, and the same procedure was very applicable in demonstrating the presence of tubercle bacillus in lupus vulgaris, the best plan was to curette a portion of tissue, mash it thoroughly and forcibly between two slides, and then stain for tubercle bacilli as if it were sputum. It would be found by this treatment much easier to detect the presence of tubercle bacilli. Another way, of course, is to inoculate a guinea-pig with the material.

DR. ROBINSON said that he did not think too much weight should be placed upon a reaction after tuberculin injections as proof of the existence of tuberculosis, as he believes it may occur in other chronic infective granulation-tissue formations, as leprosy, syphilis, etc.

DR. HARTZELL called attention to the fact that none of the histological features of tuberculosis was present in the sections. Although the failure to find tubercle bacilli would not necessarily exclude tuberculosis, yet the histological features were not those of tuberculosis. As to the possibility of the lesion having been produced by the toxins of the tubercle bacillus, he said so far as he was aware the toxins did not produce anything like new growths; the eruptions produced by toxins of the tubercle bacillus are usually superficial in character—largely erythematous and pustular.

DR. HYDE said that reference had been made to a very interesting case—absolutely unique in his experience. Dr. Montgomery had prepared some very interesting slides from sections of tissue removed in that case and had examined the specimens very carefully. The patient died, not from accidental tuberculous infection, but from a rapid tuberculous infection after an operation for the relief of the ulcers in the back.

DR. MONTGOMERY said that no well-formed tumor disappeared. Three or four of the tumors, however, were preceded by lesions which appeared like deep-seated furuncles, and were associated with slight elevation of temperature. One of these furuncular lesions disappeared completely, leaving no scar. The central half of the large plaque-shaped tumor on the

back had been replaced by a firm, elevated, somewhat irregular scar that was in places slightly vascular. In each of three sections, out of over 200 examined, two or three bacilli were found.

A second case presenting the same clinical appearances is now under our observation. This patient has not yet consented to a histological examination of the lesions, but an inoculation of three guinea-pigs with secretion and bits of tissue from one of the tumors has given no definite result.

DR. POLLITZER asked Dr. Shepherd why, in view of the striking resemblance to mycosis fungoides, both clinically and histologically, he had rejected that diagnosis.

DR. SHEPHERD, in closing the discussion, said that the patient had not been taking bromids or iodids—indeed, she had not been under any treatment whatever. A careful examination of the lungs was made, with negative result. There was no sputum. If he remembered correctly, a guinea-pig had been inoculated, with negative result. He had seen so few cases of mycosis fungoides that being sure that there was nothing in the histological appearance resembling this disease, and in view of the fact of the limitation of the eruption and the absence of a premycotic stage, he had given up that diagnosis. He had great faith in the tuberculin reaction, as it had cleared up a number of very obscure cases for him, and he now believed that the case was probably tuberculous.

Lymphangioma Circumscriptum, with a Report of Two Cases.—By DR. W. T. CORTLETT of Cleveland.

The patient was well developed physically. There was a wart-like eruption on the left calf.

DR. ROBINSON stated that the clinical symptoms and microscopical appearances were so different in these cases to those present in the three cases he described at the meeting in Montreal, that he was not prepared to agree with the diagnosis of the author.

DR. HARTZELL called attention to a case which he reported to this association some years ago, in which a patch of vesicles seemed to move slowly up over the shoulder, being originally at the scapula. It disappeared at the lower margin as it did this, giving the appearance of the whole mass moving upward. He had seen this case recently, and the patch had moved very decidedly up to the anterior portion of the shoulder, and some of the lesions had disappeared.

DR. GILCHRIST said it was interesting that non-inflammatory vesicles had formed just as a result of dilatation of the lymphatics. He mentioned this because many text-books pass over this point. It would seem that where a vesicle is first formed has an important bearing upon the character of the disease. In certain diseases the vesicles begin in the horny layer, in others, in the rete, in still others, beneath the rete, and they can be divided into those which are inflammatory, and those which are non-inflammatory.

DR. ELLIOTT said that according to the cases that he had seen—and he had reported the first one of the kind in this country, in 1890 or 1891—he could not agree with the diagnosis given in the paper. His examples of lymphangioma circumscriptum did not resemble the present case in any way. The cases of Dr. Morrow he had examined under the microscope, and they bore no resemblance to lymphangioma circumscriptum. In the latter the lymphatic change was perfectly apparent and marked; there were no inflammatory symptoms; there were no leucocytes of any kind; there was nothing but a cavity, the wall of which was formed by the rete and the horny layer; whereas in the former no corresponding features existed.

DR. BOWEN said that the first case did not seem to him at all like typical

cases of lymphangioma circumscriptum, neither did the histological investigation seem to bear it out. In the two cases which he had examined, as Drs. Robinson and Elliot had said, there were large, cyst-like chambers, not at all like dilated lymph-spaces. In the second case Dr. Cortlett describes a vesicle in the epithelial layer, which is entirely inconsistent with what is known of the histology of lymphangioma circumscriptum. The case would seem to him much more like one of the linear nævi. It might be said that these lymphangioma cases are all lymphatic nævi.

SECOND DAY—JUNE 1ST.

GENERAL DISCUSSION: LUPUS ERYTHEMATOSUS.

(a) Its Etiology and Pathology.—BY DR. A. R. ROBINSON.

(b) Its Amenability to Treatment.—BY DR. J. C. WHITE.

(a) Its Etiology and Pathology.—BY DR. A. R. ROBINSON.

He said that after a study of all the reports published since 1893 he had been unable to come to any conclusion regarding the effect of diet and occupation. It was generally agreed that a lowered condition of nutrition exists. The disease is more frequent in the country than in the cities, and more frequent in cold climates, as for instance, in Norway. Among the local predisposing factors were mentioned interference with the circulation of the part from any cause, cold, congestive conditions, seborrhea, etc. Among the accompanying conditions are chlorosis, dysmenorrhea, anemia, and tuberculosis. The malignant form is frequently followed by cardiac, and renal trouble. In the opinion of the author, the belief that the primary cause of the disease is to be found in a disturbance of the circulation of the part, and that any microbe can produce the disease, is opposed to sound pathology. The continuous existence of the lesions for many years, and the manner of its extension are inconsistent with the view that they arise from toxins generated in the digestive tract. A decided reaction with tuberculin—in fact, in some instances more marked than in lupus vulgaris—has been observed in quite a number of cases. From our present knowledge, lupus erythematosus, he said, cannot be a local disease caused by a multitude of agents, nor can it be produced by toxins from other parts of the body; it is more probably a chronic infective process, with organisms at the seat of the lesion. Many authorities believe the process begins in the blood-vessels. The supposition that the disease has any connection with the sebaceous glands or with the hair-follicles is not borne out by experience, and moreover, there is no hypersecretion of the sebaceous or sweat-glands. Leloir states that the epidermis is only secondarily affected. There is a diffuse infiltration in the derma, especially in the upper third. The infiltration is composed of a large number of embryonic cells, which are found along the blood-vessels, and in a diffused form in the derma. The cells are subject to degeneration in a haphazard way. Sometimes new blood-vessels form. Dr. Robinson said that his own observations confirm these of Leloir as regards the condition of the blood-vessels, and the seat of the infiltration. The changes in the epidermis are always secondary. At first, there is no hypertrophy of the epidermis, and the atrophy does not occur until later. The rete shows some vesicular degeneration in the lower row, the infiltration consisting of mononuclear cells having a tendency to form foci, and staining well. There are no evidences of thrombosis. The infiltration is not in the papillary layer, nor around the hair-follicles or sebaceous glands. The papillary layer shows some infiltration, and subpapillary layer a still more marked infiltration. The principal feature is the large collection of

cells, sharply limited, and consisting of mononuclear cells with occasionally a mast cell. In the place of the normal tissue of the part there is a well-formed reticulum. The absence of polynuclear and giant cells, the presence of this reticulum, the marked staining of the cells throughout, Dr. Robinson said, could only be the result of a local infective process. There was nothing in it resembling a tuberculosis. The nerves, sweat, and sebaceous glands are normal in this stage. He, therefore, regarded lupus erythematosus as a local infective granuloma, and not a local tuberculosis.

(b) Its Amenability to Treatment.—BY DR. J. C. WHITE.

He said that after forty-years' experience he still held a well-nigh hopeless opinion regarding the curability of this disease. He did not believe it could be positively predicated that, under the influence of any known drug, a cure could be affected. If the case present an inflammatory type, the most soothing applications should alone be used at first, and they are appropriate from time to time, in every case, to meet conditions of hyperemia. In cases of the acute multiple type, these milder measures are all that the skin will tolerate. He derived far more benefit from these soothing applications in the long run (*e. g.*, black wash, zinc oxid, and calomel washes, zinc paste). Among the more stimulating preparations were mentioned sulphur ointment, zinc oxid, and sulphur wash, white precipitate ointment and lactic acid. Later on, iodo-glycerine and mercurials had proved beneficial in his hands. Creosote, carbolic acid, pyrogallie acid, chrysarobin, and remedies of that class were the most severe that he used. He had seldom resorted to the use of the curette, or to cauterization. He had attempted to annihilate certain areas on the trunk by the use of fuming nitric acid, but had seen the disease recur beyond the areas so treated. The number of complete and permanent cures that he had affected was certainly sadly small.

Lupus Erythematosus in a Tuberculous Patient, with Autopsy Report, and Notes on Other Cases.—By DR. J. A. FORDYCE.

The subject of the first report was a very stout and intemperate woman who had only menstruated three times in her life. Three years ago the eruption, shown in the illustration presented, appeared on the face. It was a typical lupus erythematosus, having a brownish-red color with a yellowish tint. The eruption was chiefly made up of dilated capillaries, but there was some infiltration in the center of the patch. The woman died in coma. At the autopsy no tubercles were found. The liver weighed sixty-five ounces, and was of a golden color. The spleen was soft and twice the normal size. There were tubercular areas in both kidneys, and the right one contained a large tubercular abscess. Microscopic examinations of sections showed the typical lesions of tuberculosis, but the examination for tubercle bacilli had not yet been made. In the section from the affected area of skin no polynuclear cells were found. The principal microscopic changes were vascular. There was no tubercular inflammation of the skin. The eruption corresponded closely with the telangiectatic type, and it is probable that rosacea was the primary condition.

The second case reported was that of a girl of nineteen, both of whose parents were phthisical, and in whom the cutaneous affection had been observed for about six months.

The third case, a patient of fifty, had been already presented to the New York Dermatological Society. There was a symmetrical erythema of the cheek and nose. Large doses of iodid had no effect.

The fourth patient was seventy years of age, and had, in addition to the pain and swelling of the face, fever, headache, and chills. The face had been affected twenty years ago.

The fifth patient had been shown to the Association last year. The cutaneous lesions developed three years ago, beginning in the hands and feet. The skin was loose, glistening, and parchment-like. In October, 1897, the patient had experienced pain behind the left ear and down to the shoulder, followed by deafness, hemiplegia, and diplopia.

The last case reported was that of a patient who had been shown at the Montreal meeting.

Dr. Fordyce, in closing, said that he inclined to the opinion that lupus erythematosus is due to a local thrombosis of capillary vessels previously diseased by cold, rosacea, or seborrhea. The peripheral extension may be explained by the spreading of this process in the capillaries. In other cases the passage of toxins through the vessels may develop a local thrombosis.

DISCUSSION.

DR. GILCHRIST said that he had examined sections from only three cases, but it was interesting to note that the results in these supported most of the statements made by Dr. Robinson. Lupus erythematosus seemed to him histologically to be very distinct from tuberculosis of the skin. In a number of sections of tuberculosis of the skin in which tubercle bacilli had been demonstrated the picture was not at all typical of tuberculosis. For instance, only one giant cell had been found in forty sections. The glands affected in lupus erythematosus were more probably enlarged on account of irritation than by the same process producing the lupus erythematosus. He had not found any thrombosis of the blood-vessels of the skin in the three cases examined. The last case he had seen was a typical one of lupus erythematosus on both cheeks and nose of a woman. Examination of the different portions showed the three stages of the disease—the rosaceous process practically agreed with what Dr. Robinson had seen; the sections from the patch on the right side demonstrated a similar condition of the vessels and the scar-tissue was interesting as showing the complete atrophy of the sebaceous glands and dilatation of the sweat-ducts and sweat-glands. The epidermis was only affected secondarily. There were peculiar changes in the connective tissue of the upper part of the corium and only a few giant cells and mast cells were present. In the advanced stage of the process numerous lymphoid cells could be found around the vessels accompanying the sweat-ducts.

With reference to the treatment the speaker said that his experience comprised only about twelve cases, and while they had been relieved, none had been cured. He had lately tried applications of pure carbolic acid on the nose in one case, and apparently with benefit. In other cases fairly strong ointments of salicylic acid and lanoline had produced good results.

DR. M. B. HUTCHINS of Atlanta said that his experience with lupus erythematosus had been quite limited in his section of the country. From what he had seen of the disease, and from his reading on the subject, he did not believe there was any relation between lupus erythematosus and lupus vulgaris, except in the family name. He could not recall more than two or three cases in his eight years and a half of experience in Atlanta. The last case was seen this year, and he treated that according to a plan pursued in the New York Skin and Cancer Hospital in 1889. The case was not very old. In the hospital referred to, a cure was apparently effected by the use of a twenty-per-cent. pyrogalllic-acid plaster. This treatment was used on the last case seen, at one time alternating this with the use of the official mercurial plaster. The case was discharged apparently cured. Of course, such an experience was of comparatively little value, because of the small number of cases.

DR. ELLIOT said that he had listened to Dr. Robinson's and Dr. White's papers with intense pleasure. He felt very diffident about saying anything in regard to lupus erythematosus. He was very much in doubt about the nature of the disease, notwithstanding an extensive experience with it, but he would, nevertheless, disassociate it absolutely from tuberculosis. Tuberculosis is so common that it is easy to find in a series of cases of any kind a history of tuberculosis. Investigation into the family history of patients with impetigo contagiosa, scabies, pediculi capitis, and many other diseases would reveal antecedent tuberculosis, and it seemed to him that our French colleagues were going too far with their "tuberculides" and that they would soon fetch up where they did some years ago with their "herpetidra and arthritisme." As far as toxins are concerned, it was a very fascinating and enticing subject, but it did not explain to him lupus erythematosus. If they caused the disease, they must have a source, an origin; they cannot arise of their own accord and without cause. If due to hereditary transmission where have they been previous to the outbreak of the evidences of the disease—which occurs at any age? If due to recent acquirement, what is their source, and where are the tubercle bacilli which have suddenly let them loose to produce their ravages in the tissues? In his opinion the association of tuberculosis with lupus erythematosus could not be regarded as resting on any substantial basis.

In regard to treatment, he was also very conservative. He could assert that he knew of one case which was cured but he could not vouch for any others. In the cured case the lesion was a small one, and it was removed by the actual cautery. Fortunately nothing returned around the scars. He had tried every form of treatment, and had not seen two cases in succession react in the same way to the same treatment. Formalin, ichthyol, mercurial plaster, operative measures, pure carbolic acid, Fowler's solution, the cautery, beta naphthol, etc.—in fact, all remedies, both external and internal, had failed. He had kept patients for months on Thompson's solution of phosphorus, and had seen the disease progress steadily during all this time, and he would therefore agree entirely with Dr. White's paper in regard to the treatment of lupus erythematosus.

DR. ALLEN said that such a paper as had been presented by Dr. Robinson must excite one's admiration when we consider the amount of work which it represents, not only in investigation of the literature of the subject, but in confirming the findings of other observers by the microscope, to say nothing of the reader's own original investigations. Work of this kind is very useful to crystallize the knowledge which we already have, although it may possibly settle only one little point regarding a given disease.

In listening to Dr. White's excellent *résumé* of the treatment he wondered whether, in the list which was not read, there were two plans of treatment which, the speaker said, he had carried out during the past year. One of these was the use of the electrolytic needle. He had treated a small patch of telangiectatic lupus erythematosus on the side of a woman's nose with what seemed to be excellent results, so that when last seen the patch looked nearly well. During the winter he had reported to the New York Dermatological Society an instance of supposed cure with pyrozone, thinking at the time that the man was well. Since then the man had been seen, and he now withdrew this case from the records of cures. New spots had developed since that time. Nevertheless, he had confidence in this remedy, and would like to hear from Dr. White whether pyrozone was also included in the list. The large collection of photographs and photomicrographs presented by Dr. Fordyce has been very instructive.

DR. POLLITZER said the specimens that he had examined bore out in

general the remarks that had been made on the histology of the subject. With regard to the frequent reference still made to the involvement of the sebaceous glands and the notion that disease begins in those glands, he said that he thought the fact that the disease affects the mucous membranes, where there are no sebaceous glands, should eliminate forever the idea that lupus erythematosus is in any way an affection of these structures.

With regard to the treatment, he said that one method had not been referred to about which he should be glad to hear the experience of the members. It is the method, which two years ago, at the meeting of the German Dermatological Association, was proposed by Dr. Schütz of Frankfurt. It consists in painting the patches with a very weak solution of arsenic—Fowler's solution diluted with four or five parts of water. It is remarkable that such an infinitesimal dose of this drug should produce the effect which he had been able to verify. After applying this weak solution for several days, Dr. Pollitzer said the affected patches showed a severe inflammatory reaction. Soothing measures were then to be adopted, and when the inflammation had subsided, the arsenic is to be again applied, and so on in this way, alternating the remedies for an indefinite time. Experience seemed to show that it did not take long for the patches to become decidedly smaller, and to react less violently upon the successive applications of the arsenical solution, and finally to disappear. He had treated in this way a very severe case of lupus erythematosus, which Dr. Hardaway had seen at one time. There was an almost unbroken patch extending from one mastoid process in a broad zone clear across the face to the other. In addition, there were twenty to twenty-five smaller discoidal patches on the scalp and other parts of the face. Under the Schütz treatment the case looked almost cured when last seen about six months ago. At that time the areas which had been worse presented a clean, perfectly normal appearance, but a few patches remained. The patient had reported to the speaker about a week ago that there had been a relapse. The case was mentioned to hear the experience of others with this method of treatment. He had used the same treatment in cases less severe than the one referred to—cases in which a more stable condition had been reached. In them, the reaction and the result were both much less marked.

DR. MONTGOMERY said that he had tried this method of Schütz faithfully. and in two cases, although he had secured the secondary reaction, he had never succeeded in reducing the size of the patches even temporarily.

DR. SHERWELL said he desired to acknowledge with gratitude the instruction given him by the papers of Dr. Robinson and Dr. White. It seemed to him curious, however, that nothing more definite had come out of the extensive histological and pathological researches that had been made. He had had a fairly large experience in cutaneous diseases, and necessarily with lupus erythematosus, and it was strange how many cases came under observation in which it was difficult to differentiate between the forms of skin lesions known as lupus. It was possible that he had been fortunate, but he certainly had had cures in lupus erythematosus. One of these occurred eighteen years ago, and the picture was absolutely identical with the one shown in Duhring's valuable atlas. This case was cured, and has remained so ever since. He had had other cases, less typical, which had remained cured. In the treatment he employed the acid nitrate of mercury in many cases, and while it sometimes failed, the results had been, on the whole, satisfactory to him. He usually employed arsenic internally also, combining it usually with syrup of iodid of iron.

DR. ZEISLER said it was quite natural that dermatologists, in forming an opinion on the pathology of lupus erythematosus, should have been de-

pendent in the past upon "personal impressions." He had himself been "impressed" for a long time with the parasitic nature of lupus erythematosus. Its frequent occurrence on hairy places seemed to him one small point in favor of that view. As regards the relation of the disease to tuberculosis the speaker said that he had always endeavored to keep his mind free from the idea that there is any such connection, yet he must confess that in some the connection to tuberculosis did seem very suggestive, to say the least. On the other hand, there were many cases of lupus erythematosus occurring in such robust individuals that the idea of tuberculosis must be summarily dismissed.

The paper of Dr. White was delightful because of its candor. Personally, he always felt doubtful on approaching a case of lupus erythematosus as to what would be the result of treatment. In some cases in which there was a turgescence of the skin he felt the outlook was more favorable than in the others, where there is beginning atrophy. In the past few years he had adopted, with considerable satisfaction, a certain method of treatment. This consists in the application of a mixture of equal parts of iodine, carbolic acid, and chloral. A sufficient dilution of the carbolic acid is thus obtained. The application is made about once a week, and is followed by mild treatment in the interval. In a general way he had found that ointments were often borne very badly. In their place he had given the preference to lotions. He had discarded many of the remedies formerly used, and had entirely abandoned all surgical measures. In one case, which had wandered all over the country, he had finally seen in Unna's clinic with such dreadful scars that the remedy seemed worse than the disease.

DR. WINFIELD said he was inclined to think, with Dr. White, that it is a disease which is practically incurable. The only case in which he had effected a cure, and that only for a year, had been treated with pure carbolic acid without the cautery. The mild measures seemed to him very much better than the more severe ones.

DR. G. T. JACKSON said that he had tried the treatment by Fowler's solution, spoken of by Dr. Pollitzer, in a number of cases and for a number of weeks. It produced a marked reaction but in his hands it had failed to cure. During the past year he had used a fifty-per-cent. solution of resorcin, as suggested to him by Dr. Bronson, and had seen more marked good results from it than from anything he had used. He could not say that he had seen any case cured by it, but all had markedly improved. It produced considerable inflammatory reaction. When this was caused the resorcin should be stopped for a day or so and cold cream used until the inflammation subsides. Then the resorcin should be used again.

DR. JACKSON said that in the past year he had used, with much satisfaction, a fifty per-cent. solution of resorcin, and had more faith in it than in any other application.

DR. FOX said he certainly had seen many cases of erythematous lupus get well, and stay well for years; he would not say that he could always cure them. He relied mainly upon general treatment of the patient. The only valuable local treatment, in his opinion, was something of a destructive nature. In the milder forms of incipient erythematous lupus he had cured several cases by the application of carbolic acid. Whether the application be pyrozone, or strong resorcin, or Fowler's solution, in a few of these early cases where there is not much congestion, any one may effect a cure. Carbolic acid, he believed to be the best. In some bad cases of erythematous lupus he had seen the disease get well because it had spread over the entire face and did not seem disposed to go further. In the case of a nurse at the New York Skin and Cancer Hospital, the change from hos-

pital to the country caused the entire disappearance of extensive erythematous lupus, although countless remedies had previously been tried in vain by successive house surgeons. He was inclined to believe that with a red-hot poker the worst case of erythematous lupus could be cured, but would not recommend such heroic treatment, nor the temporizing treatment which usually produced no effect. The majority of plans of local treatment recommended had been, in his experience, apt to aggravate the case, provided there was much congestion. He did not believe a square inch of patch of lupus erythematous on the face could be cured by local remedies any more than one could cure a square foot of scarlatina on the body. The patch could be improved, but the cure could not be effected except in the very mild cases referred to. Two years ago in London a case of lupus erythematous lupus was exhibited, in which a cure was claimed to have been effected by quinin. On reaching home he had put an obstinate case on quinin. There was a most decided lessening of the facial congestion, but in a month or two the quinin seemed to have an exactly opposite effect. He had seen the administration of salicylate of sodium followed by a wonderful lessening of the congestion. He thought if we paid less attention to the action of this or that local remedy and adopted measures for lessening the facial congestion, our success would be far greater. He did not think we were justified in saying that the disease was incurable.

DR. BRONSON said regarding the infective character of this disease, that it did not accord with the view which he had always had of it. He had always regarded it as a form of erythema, and analogous to many other forms of circumscribed erythema. There was something in the capricious nature of the disease—*e. g.*, its sudden disappearance at times—which seemed to indicate that the disease was not purely local, but that there was an underlying constitutional cause. The fact that it increased peripherally and apparently by contiguity, might give color to the theory that it is parasitic, but a similar progress takes place in other skin diseases which are entirely due to nerve disturbances. Just how one should define lupus erythematous is uncertain. He has usually regarded it as a form of erythema, the issue of which is atrophy, for unless we find atrophy resulting from the erythema we could hardly regard it as positively a case of lupus erythematous. But he believed there were probably intermediate forms, for coincidentally with the typical case one sees patches of erythema which are comparatively evanescent and disappear without any resulting atrophy. Regarding the disease, as he did, as an erythema—certainly it was so clinically—the most that we could do was to act upon the hyperemia. That had been the object of his treatment. He did not believe this could be done by the severe measures recommended by Dr. Fox. He had used acid nitrate of mercury, but the disease always seemed to advance more rapidly beyond the area of the application. He had seen good results from pure carbolic acid, but this is a very mild escharotic—it is rather an alterative to the skin. We should search for a remedy which will control the hyperemia. The remedy that answered this indication better than any other he believed was resorcin. He knew of nothing so effective in prolonged cutaneous hyperemia. There was reason to believe that it exerted such an influence even when given internally. Though it is a comparatively simple remedy, it has a decided effect on the skin if used sufficiently concentrated. He preferred to use it in the form of a varnish made with tragacanth and gelatin. It is much better than a paste, as it is not unsightly. It is what the Germans call *Schälkur*.

DR. DUHRING said he had been much interested in the papers, and the association certainly had cause for congratulation in having this obscure

subject presented to it in such an admirable and conservative way. The papers were models for future work, and were well calculated to put the association in a favorable light before the profession at large. From contact with physicians he felt that some had seen more of this disease than he had. The disease is certainly most obscure in its etiology, and its treatment is generally most difficult. After many years' experience he agreed in the main with Dr. White concerning the general outline of local therapeutics—namely, that in most instances mild or weak remedies are more useful than the strong ones. He had largely given up active treatment with strong remedies, for he was convinced that he had made many cases worse by the standard stronger remedies generally recommended. The use of caustics he considered a bad method of treatment. His experience was that the disease was very apt to crop out on the periphery of cauterized patches. Concerning the relation of this disease to tuberculosis, he thought there was no connection between them, but he had occasionally observed the disease occur in what he took to be tuberculous subjects. He had also seen, in a few instances, a patch of lupus erythematosus followed by true cancer of the skin. Many years ago he had had under his care a man with symmetrical lupus erythematosus on the cheeks. He failed to do him any permanent good, but he kept him under observation at intervals for upward of fifteen or twenty years, or until the time of his death. After a number of years the lupus erythematosus developed into cancer, and this rather rapidly caused death. A remarkable case of lupus erythematosus had occurred in a well-known gentleman in his city, and that he had followed for about fifteen years. The man was about forty years of age, and local and internal treatment was continued for some time. It was unsuccessful, although the patient seemed fairly well satisfied with the improvement that had taken place. He subsequently went to Richfield Springs, and at end of six or eight weeks of bathing and drinking the disease had practically disappeared. Later on, there was some recurrence, and the following season he then took a second course of baths, with the result that the disease gradually disappeared, and has not returned. A period of about ten years has since elapsed.

In his experience, curetting is not only useless, but tends to aggravate the disease. He had tried painting the patches with arsenic, but with rather disastrous results. He was strongly of the opinion that the future treatment of lupus erythematosus would be largely by internal medication. His own observations on this subject had not advanced sufficiently, however, to make any positive statements, in the way of citing cases.

DR. HARDAWAY said that he had long felt that under the term lupus erythematosus several disorders had been included—for instance, the frank, congestive form of the disease occurring for the most part, in healthy, robust people. Then there was another type—the so-called fixed lupus erythematosus—which very probably represented a tuberculosis. Some years ago he had reported to this association the case of a young man who had a form of eruption simulating lupus erythematosus, and the erythematoid lupus vulgaris of Leloir. The disease was localized and unsymmetrical. He had made repeated efforts to demonstrate tuberculous nodules. Finally, tubercle bacilli were found. On clinical grounds such a case would be dignified as a lupus erythematosus. Then there was the form of the disease in which there is a lethal ending, of which he had reported to the association two examples. He had no surmises to offer as to this trouble. It begins as an ordinary lupus erythematosus of the face, and is followed by wide dissemination and death.

Regarding the treatment of the congestive or symmetrical variety, it

seemed to him to be highly uncertain. In the fixed form he had seen good results from electrolysis. In this connection he recalled a case sent to him many years ago by Dr. White, and diagnosticated by the latter gentleman as a case of lupus erythematosus. He destroyed the patch by electrolysis, and the patient has remained well in spite of the fact that he was below par in his general health. For the fixed form of the disease he would, therefore, still reserve the destructive treatment, as opposed to the other form in which the destructive treatment acts badly. He had used the Schütz treatment in one case with a satisfactory result. It was a chronic, symmetrical case.

DR. BOWEN said that he had expected to hear more about the association of lupus erythematosus with tuberculosis of other parts. The French school says that this is very frequent. This is a question which ought to, and can be determined. He was disappointed in not hearing from the members whether or not they had noticed any cases so associated. The case of Dr. Fordyce was one in point, where a tuberculous focus was seen in the kidney. Dr. Bowen said that he had seen a fair number of cases of lupus erythematosus, and had looked particularly for signs of tuberculosis in these patients. In two cases only there had been such an association, and in both, pulmonary tuberculosis was present. The second case is now under observation—a woman of fifty with lateral curvature, and distinctly phthisical. The other was a hospital case—a woman of twenty-five or thirty with marked signs of pulmonary tuberculosis.

DR. FORDYCE said that in addition to the cases reported in his paper he had observed cases of lupus erythematosus of the face with advanced tuberculosis of the lungs. It was not at all unusual to have such cases presented to the New York Dermatological Society. Dr. Jackson had presented a case a year or two ago, following tuberculous lymph-nodes of the neck. In regard to treatment, he said he had one or two positive results. About one month ago he saw a gentleman whom he had treated four or five years before for a typical lupus erythematosus on the chest. After one application of pure carbolic acid the patch disappeared, and he had no further manifestations until quite recently. He had tried the Schütz treatment in several cases, and while he had obtained the reaction he had seen but little improvement.

DR. ROBINSON said that he had attempted to show that the disease could not be the result of a toxin formed in some other part of the body on account of the clinical history of the disease. From the microscopical studies it also could not be a local tuberculosis. The disease, in his opinion, was a local infective process, as shown by the granulation-tissue formation, the direct exciting agent of the nutrition changes being as yet unknown. He was surprised tuberculosis was not more often associated with erythematous lupus, considering the poor general nutrition of most of the patients, from one cause or another, making the soil favorable for the tubercle bacillus.

If he had an extensive erythematous lupus of the scalp he would risk producing erysipelas of the part, as he had seen excellent results in that way. Of course, some risk is run, but he thinks it worth the risk.

DR. HYDE said that at one time he had written to Dr. White hoping that he (Dr. White) would make a trial of a treatment which he had found very satisfactory. The treatment consisted in the use of a paint of pyotanin blue after disinfecting the surface with a formalin solution. This application was to be made daily for many days. Of course, the treatment was in a high degree disfiguring for a time. The results obtained were far better than any he had before seen. Having observed such remarkable results

he had endeavored to induce Dr. White to try the remedy. In one or two instances in which it was used no good effect had been observed. In one of these, a young woman from California, who was willing to follow any course she was directed, no good result was observed.

DR. WHITE, in closing, said that if the disease is capable of spontaneous involution, it did not follow that we should claim a "cure"; a cure must result from our treatment. He would like to know what Dr. Fox meant by saying that we could not cure any "small patch" of lupus erythematosus, while at the same time expressing the greatest hope as to our ability to effect a cure in general. It should not be forgotten that Fowler's solution is a complex substance, and that there is more in it than the small amount of arsenic contained therein. He had used it externally in a number of cases without observing any permanent favorable effect from it.

A Report of Three Cases of Urticaria Pigmentosa.—DR. H. W. STELWAGON read this paper, and exhibited the little girl, described as case second.

The first case was that of a boy of six years, of robust health and good family history, first seen in 1889. The eruption began when he was eighteen months old, and since that time had continued uninterruptedly. The lesions were most numerous about the trunk, genitalia, and neck. The older lesions disappeared without leaving a trace.

The second case was that of a girl of eleven months, first seen in 1895. She had been up to that time in good health. When only three and one-half months old the skin affection made its appearance on the lower extremities, but later on the eruption became general. The itching was not a prominent feature, and at first no wheals could be produced by rubbing the skin between the lesion. There was no history of urticaria in the immediate family.

The third case was that of a girl of eight years, seen in the early part of the present year. The eruption began at the age of three months, appearing first on the trunk. It had gradually extended, and at present the lesions were most numerous on the neck. The beginning lesions in these cases were, for the most part, wholly urticarial in the early stages, and the eruption was most abundant on the neck and trunk. In two of the three cases the subjects were females.

DISCUSSION.

DR. GILCHRIST said he had obtained sections from one case of urticaria pigmentosa, and examination showed that Unna's statement was correct, that the lesions consist largely of mast-cells. The appearance of the sections seemed to be that of a new growth, probably as a result of altered nutrition, which allowed the accumulation of these cells. In connection with the treatment diet seemed to play a very important part. In the case referred to the lesions could be aggravated by allowing the child to eat anything it pleased, whereas the lesions improved under a restricted diet.

Impressions and Conclusions from a Study of 5000 Cases Treated During the Year.—By DR. C. W. ALLEN.

Speaking of favus, the author said that the exclusion of children affected with this disease from the public schools seems only to have the effect of driving them to private schools. Most of them were foreign-born. The best treatment consisted in cutting the hair closely, and using chrysarobin locally. In ringworm of the scalp he had used, with much satisfaction, a solution of formalin. A treatment for facial erysipelas that had yielded him very good results consisted in the application of a fifty-per-cent. solution of ichthyol in water to the nose, and painting the face with a twenty-five-per-

cent. solution of the same remedy in collodion. He had found erythema multiforme uniformly a febrile affection, and he believed it was an infectious process. Regarding erythema nodosum, he said that so many cases occurred in children and young adults who had just taken a sea voyage that he strongly suspected there was a definite connection between these two facts. The temperature often rose to 104.5° F. Of the forty-one cases of zoster coming under his observation, in one the lesions were markedly hemorrhagic. As the patient was also suffering from pertussis, this probably explained the peculiar nature of the eruption, pertussis being an infectious process. In the vesicles, Dr. H. Koplik was able to find some diplococci of peculiar appearance, but the germ of pertussis was not detected. He had met with a number of instances of prurigo in persons coming from abroad, usually young adults from Austria.

DISCUSSION.

DR. JOHNSTON said that the reader of the paper had recommended the use of formalin. He had also been persuaded to use it, but he had had most unfortunate results with it in almost every instance. He had seen a most violent and untractable dermatitis produced by a half-per-cent. solution. A forty-per-cent. solution produced perifollicular suppuration resulting in artificial kerion, but in case of necessity this could be accomplished with less inconvenience in other ways.

DR. SHERWELL said, regarding the use of ichthylol in these erysipelatoid troubles, that the treatment was useful, but he preferred a much milder formula—ten-per-cent. or less aqueous solution of ichthylol in the form of spray. He had also found that in sycooses of the upper lip the spraying of the nares was of great benefit. Regarding the frequency of favus, he said that he had seen more favus in the last few months than he hoped to see in the next ten years. The Ellis' Island home for those affected with this disease had been burned down and the patients had been transferred to the hospital with which he was connected. He was glad that steps had been taken to exclude these people from the United States, and to reship them to their native shores; they were more dangerous, in his opinion, than cases of leprosy in and around a hospital.

DR. CORLETT said favus was not uncommon in Cleveland, and for many years he had remarked that the disease was confined to immigrants from Europe, mainly from among the Polish Jews. Four years ago a boy from Southern France came under observation, and quite recently he had seen favus in a native American of German parentage. No history of the disease could be obtained in other members of the family. This was the only instance in his experience of favus attacking a child born in the United States, but he would infer from Dr. Allen's report that such was not infrequently the case in New York.

DR. GILCHRIST said that he also thought formalin was a dangerous remedy in cases of ringworm, and he had been told last year that there were in London a number of cases of severe dermatitis resulting from the use of formalin (full strength), and proving most obstinate to treatment. His experience with formalin in the treatment of ringworm had been very unsuccessful. In cases of erysipelas he was in the habit of painting tincture of iodine over the affected area and about one inch beyond the margin of the patch. This treatment, together with calomel internally, had proved most efficacious in his hands.

DR. WHITE asked Dr. Allen if he had studied the result of making the applications within the nose alone.

DR. HUTCHIN'S said that he had seen cases of trichophytosis of the scalp running for many months under the usual treatment. This year he had seen an unusual number of these cases and had used on them a half-per-cent. to full-strength solution of formalin, and it had never produced any dermatitis. These cases had recovered much more rapidly than those treated by other methods. The cases were apparently cured inside of three months. In one case of chromophytosis the body was sponged over once or twice with a half-per-cent. formalin solution, as part of treatment, and it was the first case of that disease that he had ever *seen* cured.

DR. STELWAGON said that the subject was so important that it should not go unchallenged unless the experience was a uniform one. He had in mind particularly a book which he had recently reviewed, and which spoke very distinctly of the disadvantages and ineffective nature of the formalin treatment.

DR. ALLEN, in closing, said that he recognized the fact that it is a strong and painful application. He made the applications himself so as to keep it within bounds. He had had some cases of ringworm of the scalp which seemed to have been cured by one application—at any rate they had been sufficiently well to be discharged after one application. In one or two instances there had been suppuration, but he had looked upon this as a beneficial process. All such cases had yielded promptly to mild applications. The reason he believed it so efficacious was that in isolated patches on the body, in men having ringworm of the beard, or in children having ringworm of the scalp, in which the diagnosis had been made certain by the microscope, one or two applications had proved sufficient to effect a cure. He had had families presenting all the varieties of the trichophyton, from the circinate to the postular form. He had applied it to an eczema marginatum, which had been converted into a dry scaly eruption free from itching by one application. After the application the patient had been able to sleep without any trouble from the itching. If formalin would do that, it would do more than most other remedies. In answer to Dr. Corlett's question he had seen a few cases of favus of American birth. As to erysipelas treated by applications to the nose alone, he had not felt justified in doing this, because he looked upon erysipelas as a serious disease, demanding careful and efficient treatment. He would not like to run the risk of erysipelas going over the scalp by leaving it to itself. He did not see it do this now nearly so frequently as formerly under other methods.

A Papular Persistent Dermatitis; A Report on an Undescribed Disease.—By DR. J. C. JOHNSTON.

The subject of this report was an Irish woman, fifty-two years of age, who enjoyed excellent health. The face was first attacked; afterward the arms and legs became affected. The whole corium was involved, there being a decided thickening of the horny layer. Clinically, the case was one of a pruriginous, papulovesicular eruption, the papules were discrete, hard and not grouped. The disease should be placed among the neurotic inflammations, between a neuroma and neurofibroma, being probably more nearly related to the former. The case was remarkable, both in its clinical and its histopathological appearance.

DISCUSSION.

DR. GILCHRIST said that he had had an opportunity of seeing sections from the case, but had not made a study of it. It is certainly a very unusual case, and, in his opinion, should be grouped with the inflammatory

diseases. He did not think there was enough evidence to classify it under the keratodermias.

DR. FORDYCE said that he had seen the case and examined the sections, but was unable to throw any light on the very accurate and lucid description given in the paper. It was certainly unique and exceedingly difficult to classify. The fact that the disease tended to recur on removal was a singular feature. It was probably due to some change in the peripheral nerves or in some of the nerve terminations.

DR. JOHNSTON, in closing, said that the observation regarding the infiltration about the nerve-trunks had been made originally by Dr. N. H. Welch. The author called the disease a keratodermatitis for lack of a better name. He was, however, also aware that the enormous thickening was secondary and not primary.

Remarks on a Case of Lichen Scrofulosum in a Negro Child.

DR. T. C. GILCHRIST said that he was attending a number of negro children in an orphan asylum for an epidemic of *tinea tonsurans*, when a girl, aged eleven years, was brought before him as a probable case of *tinea circinata*. There were six or seven groups of very small (0.5 mm. in diameter) slightly scaly papules which were distributed over the right scapular region, the left hip, the left groin, and the anterior surface of the right thigh. The papules were firm, flat-topped, and appeared to be arranged around the hair-follicles; they reminded one of a *keratosis follicularis*. There was a slight inflammatory areola around the base of the papules. On scraping off the scales, which were quite adherent, bleeding ensued, and although numerous specimens were examined for the *trichophyton fungus*, none were found. Other groups of papules made their appearance as the case was observed week after week, and the older lesions began to clear up in the center while at the same time they extended peripherally. This gave the older lesions an appearance of ring- or oval-shaped patches. Since no fungus was found in the scales a probable diagnosis of *lichen scrofulosum* was made. After about five weeks of observation, the patient having been given only placebos, a typical phlyctenular conjunctivitis appeared on the left eye. The diagnosis was thus confirmed. Internal treatment with the hypophosphites was now given and all the lesions rapidly disappeared, so that the child is now quite cured. [A photograph which showed the typical papules and the grouping was handed around.]

DISCUSSION.

DR. WHITE said that the description given of the case corresponded to a typical case of *lichen scrofulosorum*—an affection occasionally observed in children. A patch of papules, diminishing first in the center, and having a well-defined margin, constituted a characteristic picture. He had hoped the examination of the tissues would furnish some clew to the assumed relation of the affection to *scrofulosis*.

DR. JOHNSTON asked how long the eruption had lasted.

DR. GILCHRIST answered from ten days to two weeks.

DR. JOHNSTON said that the localization, configuration, and distribution rather reminded him of *pityriasis maculata et circinata*.

DR. DUHRING said that the first thought that had occurred to him was whether it might not be a case of *pityriasis rosea*. He was, however, willing to accept the diagnosis from the description and the photographs. He regarded this disease as extremely rare in the United States, for in his personal experience it was almost unknown. He was, nevertheless, quite familiar with the disease from having observed it outside of his own particular field of work.

DR. HARDAWAY remarked that in an experience of twenty-five years or more in St. Louis he had only met with this condition once.

DR. BOWEN asked regarding the glandular system.

DR. GILCHRIST replied that the glands were enlarged, but they always are in the negro race, and unless the increase in size is very marked but little notice is taken of this factor. It was possible that the enlargement was a little greater than the normal.

DR. BOWEN said that a tubercular structure had been almost uniformly found in such cases, histologically, and it was surprising that it was not observed here. The appearances are also very similar to those found in a lichen syphiliticus, and the absence of such characteristic features would almost tend to throw doubt on the diagnosis. Dr. Bowen had only seen one case of lichen scrofulosorum in this country.

DR. FORDYCE said that the fine papulation ought to exclude pityriasis rosea.

DR. HYDE said it had been a matter of surprise to him in a large experience to observe no case in this country. The only cases that he had seen were in Vienna, and the case just presented corresponded very closely to those seen there. He was quite pleased to find in the presentation of this case before the Association that the members had not fallen into the error of calling by the name of lichen scrofulosorum a number of dermatoses which are really dermatoses occurring in tubercular or scrofulous subjects.

DR. GILCHRIST said that this was the first case they had had out of 13,000 at the Johns Hopkins Hospital. If the members could have seen the case they would never even have thought of pityriasis rosea. The papules excised were very recent, and on microscopical examination they did not present a picture at all like tuberculosis.

Report of a Case of Universal Lichen Planus, with a Fatal Termination.—By DR. J. A. FORDYCE.

The case was especially instructive, he said, as showing that many cutaneous diseases are associated with severe lesions of the internal organs.

DISCUSSION.

DR. JOHNSTON said that the autopsy and the condition of the adrenals had interested him greatly. He would infer from this that the condition of the adrenals had much to do with the remarkable pigmentation exhibited in this case. He had supposed at first on seeing the patient that it might have followed the administration of arsenic.

DR. HARDAWAY asked if it had been Dr. Fordyce's experience that lichen planus often occurred on the face.

DR. FORDYCE replied in the negative.

DR. GILCHRIST said that he had recently examined a large number of sections from five lesions in varying stages of development which had been excised from a very typical case of lichen planus. The smallest lesion was hardly visible to the naked eye, and the largest was angular, shiny, and umbilicated; all the pathological changes were well shown in these sections, commencing with the earliest changes to the well-developed papule. There was considerable edematous infiltration, numerous lymphoid cells, and a few polynuclear leucocytes collected directly beneath the epidermis, which caused it to sink in and produce the umbilicated appearance so characteristic of lichen planus. The rete was swollen, which was due to serous infiltration, and numerous lymphoid and polynuclear cells had made their way between the epidermal-cell section, for one papule appeared to show that the process had commenced round the papillary and intra-epidermal portion of the sweat-duct.

DR. WHITE said that the amount of pigmentation was great, but he had seen cases in which it was infinitely more marked than in this one. His cases were not melanoderma from arsenic.

DR. HYDE said that the amount of pigmentation in this disease was not always proportionate to the eruption present. For a year or two past quite a number of cases of lichen planus had been reported from Chicago. In one or two cases he had been struck with the fact that, with quite a moderate evolution of the characteristic lesions, there would be an enormous amount of pigmentation of a smoky hue pervading the whole trunk. Again, in other patients, who had been informed in advance that there might be pigmentation, the discoloration had been much less marked in spite of the numerous lesions present. He could not now recall a fatal case of lichen planus reported in this country.

DR. FORDYCE said that he had seen cases of lichen planus on the lower extremities, with marked pigmentation, but he had never seen a universal case of lichen planus with such marked pigmentation, or one in which the circinate lesions were so marked. He had not heard of any fatal case of lichen planus in this country. It was a question whether the disease of the skin had anything to do with the death of his patient, as there was a marked lesion of the heart.

Bath Pruritus.—By H. W. STELWAGON.

By the term "bath pruritus" was meant the itching or burning from which some persons suffer immediately after a bath. It varies from a slight pricking or burning to almost intolerable itching. It is commonly situated in the legs, from the hips down. It lasts from ten minutes to half an hour, becoming more intense for awhile, and then gradually subsiding. It is of longer duration if the patient goes from the bath to bed, and it is seen more frequently in cold than in warm weather. It is observed even after open-air bathing, both in fresh and salt water. Prolonged bathing, and the use of very hot, or very cold water, aggravate the condition. Persons having a dry, irritable skin are the most susceptible to this affection, and the disorder is, of course, aggravated by imperfect digestion, worry, and a generally nervous temperament. The treatment is unsatisfactory. Only mild soap should be used, and that sparingly. Gentle rubbing with glycerin lotion, in small quantities, is useful, as is also the free use of some good dusting-powder.

DISCUSSION.

DR. WHITE said that he had seen several of these cases, and they did not seem to be specially influenced by treatment. In one case he had controlled the immediate onset of the pruritus by having the patient spray the body with alcohol immediately on coming out of the bath.

DR. GILCHRIST said he had recently seen one such case occurring in a young woman who had obtained relief by the external application of dilute ammonia-water which was used for about two weeks.

DR. HARDAWAY said that he had seen a number of these cases, and had observed one pretty constantly for ten years. This patient is a physician in robust health, and of a phlegmatic disposition. He has had no skin disease, and is not subject to urticaria. He has had one mild attack of gout. With him, cold water produces agonizing itching. A weak solution of menthol in alcohol, with the familiar calamin and zinc-lotion, had given this patient a good deal of comfort.

DR. HUTCHINS thought these cases belonged with those due to temperature changes—pruritus hiemalis. He had seen a good deal of this in the South where the weather was very changeable. The symptoms given, and

the fact that it is not produced by any specific temperature, seemed to him to show a relation of the affection to pruritus due to change of temperature.

DR. STELWAGON, in closing, said that the first case he had seen had been in his own immediate family. He could not see that it had any relation to pruritus hiemalis—a special form due to temperature variations. His cases did not seem to have any direct connection with the temperature. In pruritus hiemalis there must be cold, snappy, windy weather, whereas the condition to which he referred in his paper was in many cases equally well-marked in baths of any temperature.

DR. HUTCHINS explained that it was the change of temperature occurring in the bath—*e. g.*, from evaporation—that might cause the pruritus.

THIRD DAY—JUNE 2D.

CLINICAL SESSION, HELD AT THE ACADEMY OF MEDICINE, NEW YORK. A LARGE COLLECTION OF DRAWINGS, PHOTOGRAPHS OF MICROSCOPICAL PREPARATIONS, ETC., WAS SHOWN, AND THE FOLLOWING CASES:

Hyperthrophic Lichen Planus.—DR. FORDYCE presented a man showing hyperthrophic lichen planus. The eruption began on the anterior surface of the leg as minute papules. then it appeared in the popliteal space and on the penis and scrotum. It has now lost all the characteristic features of lichen planus, and consists of warty growths, which are still itching. The case has been presented a number of times to the New York Dermatological Society.

Pityriasis Rubra Pilaris.—DR. S. POLLITZER presented a boy of fifteen years showing pityriasis rubra pilaris (Devergie). At times, almost the entire body has been covered with the eruption.

Purpura Papulosa.—DR. SHERWELL presented a case of this kind, in the person of a carpenter, fifty-four years of age, whom he had first seen about one year ago. He had been in this country thirty-eight years, though a native of Ireland. His only illness was a very severe attack of acute articular rheumatism in the spring of 1894. The lesions on the knees and elbows came on after this, and have persisted in spite of treatment—indeed, they have seemed worse during the last year, and have now invaded the upper leg and arm. This case seems an exact reproduction of the one given in Crocker's atlas, being, however, yet more marked.

Dystrophy of the Nails.—DR. P. A. MORROW presented for diagnosis, on behalf of Dr. Lapowski, a man who presented a peculiar dystrophy of the nails of both the fingers and toes, which had existed from childhood. He had never injured the spine or suffered from any central nervous disorders.

Leprosy.—DR. FOX presented a man, a native of Denmark, who had lived twenty years in the West Indies. Three years ago this man presented the first signs of leprosy, in the form of some tubercles on the face. The lesions afterward appeared on the body. There had been some improvement under the use of chaulmoogra oil. The general condition of the patient was greatly improved—among other things, his sight has been favorably influenced. At present this patient appears to be very well nourished. He takes about 80 drops of the oil, three times a day, for two or three weeks, and then it is reduced if the stomach is irritable.

Unilateral Lichen Planus.—DR. MORROW presented a man who had exhibited certain lesions assumed to be of the nature of lichen planus. They had existed for about ten years on the lower extremity, and for about two years on the thigh. There was also a papulopustular eruption which

had developed on the thigh in the past few weeks in connection with a phlebitis of the internal saphenous vein. The lichen planus is unilateral.

Colloid Millium.—DR. LUSTGARTEN presented a man, thirty-one years of age, who exhibited colloid degeneration of the skin. He is married, and was born in Poland. The disseminated eruption dates back five months. The early lesions are specially pronounced over the eyelids and neck. The lesions somewhat resemble lupus vulgaris infiltration. Healing takes place with pitted scars. The general health had not been affected by the skin disease.

Premycotic Stage of Mycosis Fungoides.—DR. MORROW presented for Dr. Lapowski, a man, fifty-one years of age, having a good personal and family history. He has had frequent febrile attacks, attended with red, slightly raised patches of different sizes. From their first appearance up to the present time the patches never disappeared entirely; some brown marks are always left. The first attack occurred in 1894. Up to the present time he had had nine attacks—*i.e.*, the lesions which are now brown became bright red at such times. The last attack occurred in April. During the last attack the urine and blood had been examined and found to be normal.

Lupus Erythematosus Confluens.—DR. LUSTGARTEN presented a man, twenty-two years of age, showing a somewhat extensive lupus erythematosus. The case was presented because of the very pronounced lesions on the lips and mucous membrane of the mouth. He is single, and was born in Russia, and has always been healthy. The skin affection began five years ago in a typical butterfly shape on both sides of the face, with a few patches bridging over the nose. The lesions show all the characteristics of lupus erythematosus confluens or the follicular form. The conditions had improved lately under the Schütz treatment.

Urticaria Pigmentosa Lasting Twenty-Two Years.—DR. MORROW presented a man who had been under his observation since infancy, about twenty-two years. He had been presented at the first meeting of the Association in New York about twenty years ago. This was the first case of urticaria pigmentosa recognized in this country and the third or fourth recorded in the literature of the disease. The eruption had existed since he was five months old, and had remained practically unchanged for several years past. The case had already been published, so that he would not dwell upon the characteristic features. The very marked urticarial condition of the skin was quite evident.

DR. HYDE, the President, on behalf of the Association, thanked Dr. Morrow for again exhibiting a case which some of the members had seen twenty years ago. This comparison of experience was particularly interesting and instructive.

Nævus Treated by Electrolysis.—DR. FOX exhibited a young man to show the results of the treatment of a large hairy nævus by electrolysis.

Nævus Angiectodes Circumscriptus Universalis.—DR. POLLITZER presented a man showing this condition. The peculiar feature of the disease was the absolute universality of these congenital lesions. More of the body was covered with bright or bluish-red patches than was left in the normal condition. In addition to this the patient exhibits, in a marked degree, the phenomenon of autographism. The microscope shows the usual condition of dilated capillaries in groups, and a very striking absence of elastic tissue, which is important possibly in connection with the occurrence of the dilatation of the capillaries. The patient's heart-rate is abnormal, being constantly 110 to 120 under normal conditions. He faints

very easily, but in all other respects is in excellent health. The report of the case is about to appear in the "International Atlas of Rare Skin Diseases," where a detailed description of the histological appearances may be found. The speaker said that he believed the case was absolutely unique.

Recurrent Erythema Exudativum.—DR. BRONSON presented an art student, twenty years of age, who had had this condition for about ten years. The family history was good. After exposure in the great blizzard ten years ago, there was an attack of inflammatory rheumatism. This was followed by a prolonged attack of chorea, and while suffering from this a papular eruption appeared on the back of the hands. It was quite itchy and recurred in successive crops for several years. About a year after the eruption appeared on the hands similar eruptions began on the face, and they had continued to reappear at intervals ever since. The forehead and temples are the parts most frequently affected, though often the eruption extends down upon the cheeks. The outbreaks do not appear to coincide with any special disturbance of health, though menstruation, which is normal, and emotional disturbances seemed to have some influence. The eruption had lately been more of a tuberculous character than at first. It had occasionally entirely disappeared, but for short intervals only. Resorcin had acted very favorably, used both locally and internally.

Paget's Disease.—DR. SHERWELL presented a woman having a typical form of Paget's disease. She is forty-three years of age, a native of Ireland. She has been in this country twenty-seven years, and has nursed seven children. About three years ago a slight eczema appeared around the left nipple, which was thought to be the result of the severe suckling of a child. It healed up entirely except a slight raw papilla. This has gradually increased until now it presents a perfect picture of Paget's disease. The speaker said that he was the first to note a case of this disease in this country—1881. Duhring was the first to publish one, however. One case he had apparently cured, at least for a considerable time, by cauterization with acid nitrate of mercury, applied very thoroughly (in fact, the patient was severely pyralized thereby). She showed no relapse for a period of two years, when she was lost sight of.

Double Hemiatrophia Facialis.—DR. SHERWELL presented Mrs. A. S——, forty-four years of age, who had lived in this country since the age of two years, although a native of Germany. About twelve years ago she developed what was singularly like a facial erysipelas. The affected area was symmetrical and edematous, and the condition had existed for about six months when he had first seen her. At that time it looked like a myxedematous face; indeed, this was his first diagnosis, and the relative atrophy of the thyroid seemed to bear out this conclusion. The mental state was not, however, affected. She was put under treatment, both local and constitutional, varied in character, but mixed treatment internally and mild mercurials locally seemed to affect the most improvement. The atrophy went gradually on to the present point, and then the condition remained stationary for eight years. She has had ten children, of whom nine are dead. One boy, ten years old, is living. Some of the children lived up to the sixth year; others, third, second, and first, respectively. They seemed to be rachitic, but not syphilitic. In most of the fatal cases the diagnosis was spinal meningitis. The skin is normal in appearance and function, though stretched over the bony framework of the face, giving her the appearance of a death's-head, and there is no loss of sensation.

The opinion of many of those present was that the condition originated in disease of the central nervous system.

Linear Nævus.—DR. MORROW presented a young woman with a linear nævus, situated on the back and side of the neck, and extending down the back. It had existed for twelve years. Under the influence of irritating applications it presents the appearance of an eczema.

Long-standing Lupus.—DR. MORROW also exhibited a case of lupus which had existed for about twenty years. He had intended, he said, to present a group of these cases to show the effects of treatment, but this was the only one that had come, and it was the most unfavorable one. It has been treated by what might be termed igneus punctate scarification with the galvanocautery and was in process of cure.

Linear Atrophy of the Skin.—DR. FOX presented a young woman with a linear patch of atrophy on her left shoulder, which had been there for many years. There is a peculiar patulousness of the mouths of the follicles, undoubtedly due to atrophy of the skin.

Pityriasis Rubra?—DR. G. T. JACKSON presented for diagnosis a supposed case of pityriasis rubra. The patient was born in Italy, and gives no history of specific disease. Three years ago she said the hands were affected in the same way as now, and became well under iodid of potassium by the mouth. When first seen in October, 1897, the disease affected the palms and fingers only, as seen in the photograph. The scaling was much like psoriasis, but when the scales were removed the skin presented the glazed, red appearance of pityriasis rubra. Since then, the disease has spread up the arms to above the elbows, always with a well-marked edge. Many patches of irregular outline have appeared on the body, all being dry, red, and scaly. Various plans of treatment have been tried without effect. The case is now doing well under iodid of potassium internally and pure olive oil locally.

Polymorphous Disease of the Skin; Tubercular Glands of Neck.—DR. E. B. BRONSON presented a woman showing a polymorphous disease of the skin, usually of an erythematous type, associated with tuberculous glands of the neck. The glands appeared a number of years ago, and a number of operations have been done on them, but they have repeatedly recurred. He had had her under observation for about three years, and after each removal of the glands the eruption would disappear and return after about one week. It would reappear as a circumscribed form, sometimes crescentic, sometimes nodular, of a dusky color. At times it would become pustular or crustaceous. In one instance, when simple bleeding was done for experimental purposes, the bleeding seemed to cause the disappearance of the eruption. In many respects the eruption bore a resemblance to lupus erythematosus. No distinct atrophy of the skin was left by the lesions, but in some places there was some ischemia, looking as though atrophy might have resulted had the process lasted longer. It was pretty evidently a disease of toxic origin. Under resorcin, internally and externally, the eruption had ceased for the past few months, although no other treatment had previously had any influence.

Rhinoscleroma.—DR. KLOTZ presented a woman, now forty-three years of age, suffering from this disease. The patient was presented to the New York Dermatological Society in November, 1894, and a report of the case is found in the Transactions of this Society (JOURNAL OF CUTANEOUS AND GENITO-URINARY DISEASES, vol. xiii, p. 121, 1895). Since that time no material change has taken place in the course of the disease. The general health of the patient has not been very good, so that little opportunity for energetic general treatment was offered. She took fluid extract of sarsaparilla for some time in 1896, and in 1897 inunctions of mercurial ointment were again resorted to for several weeks. Local treatment was applied

whenever the process made a determined stride to extend on the outer surface, threatening more disfiguration; the galvano- and thermocautery and electrolysis having been employed at different times. That the efforts to keep the disease under control have not been without success, is sufficiently demonstrated by the present condition of the nose and lips, which show comparatively slight disfigurement after such a long duration of the disease. The conditions are not so favorable in the oral cavity, where there is much less chance for local applications. On several occasions considerable intumescence of the gums of the upper maxilla occurred, so that the upper lip protruded over the lower one, but the applications of the galvano-cautery have largely reduced the swelling. Inspection readily shows that in the mouth and throat shrinkage is more prevalent than swelling and new formation, the patient being hardly able to open her mouth wide enough for the purpose of eating. The uvula had been destroyed before 1889. Fortunately, the tendency of the disease was rather ascending, there being apparently no progress toward the larynx. It was remarkable that the disease had always reacted well on mercurial treatment. In the part of Germany, Hesse, where the patient was born, this disease is certainly very uncommon.

DR. C. W. ALLEN showed in connection with this case a photograph of a case of rhinoscleroma.

Keratosis Follicularis.—DR. ELLIOT presented a woman of fifty, a German, who came under his care for the first time twelve years ago. The diagnosis of an unusual form of keratosis was then made. The primary location was not ascertained definitely, but at that time the same areas were affected as were now. The lesions on the foot and knees were curetted, and she had remained well until one year ago. In sections of the scrapings psorosperm-like bodies, and the symptoms pertaining to that form of keratosis were found. One daughter, who was seen, had the same disease, and one son, not seen, was said to be similarly affected. The disease was located on the scalp, the hands, forearms, the feet, and between the toes, and on the knees. The symptoms were such as were originally described by Drs. Morrow and White, and subsequently by Dr. Darier—these writers differing only in the names they attached to the disease.

DR. WHITE said that he had had two cases, one being very much more advanced than in any other case that had been reported. In his case the pubic region was the one most affected.

Adenoma Sebaceum.—DR. FOX exhibited two cases of adenoma sebaceum, occurring in young girls. In one case the eruption was spontaneously disappearing.

Sarcoma Maculosum Melanoticum.—DR. LUSTGARTEN presented a Russian woman, thirty-two years of age, who had always been healthy. About five years ago a macular pigmentation began on the forehead, and extended gradually into the sclera and even into the fundus of the left eyeball. The ophthalmoscope shows the identical pigmentation, most dense near the optic nerve, and merging gradually into normal looking retina. The macular region is still free. The histological examination gives the picture of sarcoma.

Malnutrition of the Hair.—DR. FOX exhibited a case of malnutrition of the hair following extensive eruption on the face and scalp in childhood. According to the history, the case is not one of favus, as might be supposed.

Pityriasis Rubra Pilaris (Lichen Ruber).—DR. FOX presented a woman with lichen ruber (pityriasis rubra pilaris) chiefly affecting arms and thighs. She had been treated by a member of the association for

some time for eczema. When he first saw her he was certain that the eruption was not eczematous, but uncertain as to its nature. The case had been presented to the New York Dermatological Society where there was some difference of opinion as to the diagnosis. The diagnosis of lichen ruber was finally made, and on comparing the case with photographs of other cases the characteristic location of a patch in the bend of the elbow corresponded exactly. On the gluteal region and thighs is the characteristic rugous form, which makes the diagnosis certain.

Double Keratosis in Mother and Child.—DR. SHERWELL exhibited a woman having keratosis of both hands and both feet. She is twenty-nine years of age, and had had the lesions all her life. She had been first seen by him on October 7, 1897. He also presented her fourteen-months-old baby with decided conditions of the same disease, confined, as in case of mother, to same localities.

Symmetrical Atrophy of the Skin.—DR. FORDYCE presented a woman showing symmetrical atrophy of the skin, beginning with patches of erythema. The atrophy is on the elbows and hands, on both knees and both ankles. Six months ago she developed a hemiplegia and various other nervous symptoms. In the Neurological Society some of the members made a diagnosis of syphilis.

Vaccinia.—DR. C. W. ALLEN presented a little baby showing disseminated lesions of vaccinia. She had been vaccinated fifteen days before, and ten days afterward, the vesicular eruption had appeared.

Psoriasis, with Affection of the Finger- and Toe-nails, and Swelling of the Distal Phalanges of the Fingers.—DR. KLOTZ presented the patient, who had previously twice been presented to the New York Dermatological Society and reported for the first time in the "Transactions" (JOURNAL OF CUTANEOUS AND GENITO-URINARY DISEASES, xv, p. 227, 1897). The second time, he was shown in March, 1898, when he had appeared again in the German Dispensary, after a longer absence. He then stated that the condition of the hands had so much improved last year under the use of arsenic that he had considered further treatment unnecessary. Recently, however, the fingers had become worse again. The swelling and the flexor position of the distal phalanges is still quite pronounced, but much less than last year. Both thumbs are mostly affected. The joints are now flexible, but painful on pressure and on being moved; sometimes the pain is spontaneous. The nails show the same yellowish discoloration as before, on the distal portions, and the same turning up of the free borders, owing to the partial thickening of the bed of the nails. Besides the nail affection, the patient shows now a number of scaly patches on the arms and legs, particularly around the knees and elbows, which are undoubtedly lesions of *psoriasis*. The patient, who was formerly in the junk business, but is now an insurance agent and has not done any manual labor for years, admits having had attacks of *psoriasis* for years, but last year was entirely free from its symptoms. The evidence of *psoriasis* may readily explain the nail affection, but hardly accounts for the condition of phalanges and for the flexor position of their joints. There is no evidence of rheumatism, arthritis, or any nervous disease. The condition has again decidedly improved under arsenical treatment.

Lepra.—DR. LUSTGARTEN exhibited a woman, coming from the German part of Russia, who had been in this country seven years. She is a leper, and presents the elephantiasis condition of the hands and forearms, and recently tubercular conditions have developed.

Melanosis Cutis; Atypical Addison's Disease.—DR. LUSTGARTEN exhibited a woman of twenty-two years, who had been physically well up

to her arrival in this country in December, 1886. According to her statement, she had indigestion on board the steamer, followed by a peculiar, reticulated pigmentation of the skin of the back and chest, associated with marked weakness and reduction of weight. The condition was not changed much, though she has been under hospital observation for some time. At times, the discoloration of the skin in general, as well as of the pronounced pigmentations, seems to clear up, but only for short periods. Suprarenal extract has been given without decided benefit. Pilocarpin had been used with subjective improvement, and temporary improvement of pigmentation. She has chloasma on the face, and a general bronzed condition of the skin, and suffers from general malaise and dyspeptic symptoms.

The following officers were elected for the ensuing year; President, Dr. J. A. Fordyce, New York; vice-president, Dr. J. T. Bowen, Boston; secretary and treasurer, Dr. G. T. Jackson, New York.

Book Reviews.

An American Text-Book of Genito-Urinary Diseases, Syphilis, and Diseases of the Skin. Edited by L. BOLTON BANGS, M.D., Consulting Surgeon to St. Luke's Hospital and the City Hospital, etc., etc., and W. A. HARDAWAY, M.D., Professor of Diseases of the Skin and Syphilis in the Missouri Medical College, St. Louis, etc., etc. Illustrated with 300 engravings and 20 full-page colored plates. Philadelphia: W. B. Saunders, 1898.

It goes without saying that in the preparation of a work of such magnitude, covering such wide and diversified fields of knowledge, the cooperation of skilled workers is an essential condition of success.

The editors are to be congratulated upon their selection of contributors, many of whom are writers of ability and of acknowledged eminence in their respective specialties. To the mass of scientific knowledge collected by other observers they are enabled to add the results of their own matured experience. Some of them, also, are teachers of long experience, and, therefore, familiar with the requirements of both students and practitioners for whom the work is designed.

A cursory examination shows that more than one-half the entire volume is devoted to the consideration of genito-urinary diseases, about one-eighth to syphilis and chancroid, and the remainder to diseases of the skin. It may be questioned whether syphilis, and especially chancroid, which is disposed of in a brief description of eight pages, have received the consideration their importance demands. Also, whether adequate space has been assigned to the two hundred and more subjects embraced in the category of skin diseases. The able and accomplished editor of this part of the work has, however, seen to it that important details have not been sacrificed to brevity. The plan of condensation has indeed its advantages in that the essentials of our knowledge are presented in a more concise and compact form, and thus rendered more available for ready reference.

It would be impossible to give a critical review of the large number of separate articles embraced in this work. Uniformity in excellence or style of treatment cannot, of course, be expected in a composite work by so many different authors. Most of them are thorough and complete and bear the marks of careful research and up-to-date finish. Without being invidious, the articles on "Diseases of the Prostate," "Diseases of the Bladder," "Vesical Calculus and Diseases of the Ureter," may be indicated as worthy of

special mention. It may be very properly objected that too much space, over seventy pages, has been devoted to the relatively rare diseases of the ureter. Any one familiar with this sort of work must, however, recognize that it is exceedingly difficult to adjust the space to be devoted to different diseases according to their relative frequency and clinical importance, irrespective of the personal equation of the contributor, whose zealous interest in his own subject may lead him to magnify it and exceed the limits assigned him. The same criticism applies to other parts of the work in which the space assigned to certain subjects is by no means commensurate with their importance.

Taken as a whole, the work is thorough, accurate, and up-to-date, and the claim of the editors that it "will be found to be a comprehensive and detailed presentation of the diseases of the genito-urinary organs, of the venereal diseases, and of the affections of the skin," is largely justified. The work is copiously illustrated with numerous engravings and colored plates.
P. A. M.

Ringworm and Alopecia Areata. H. ALDERSMITH, M.B. Fourth edition. London: H. K. Lewis, 1897.

From the amount of matter added in this edition, Aldersmith's familiar work has become to all intents new. His views, resulting from careful observation, agree with those of Sabouraud regarding the plurality of ringworm fungi. He recognizes two classes, the large-spored and small-spored varieties, with the several species in each, but does not agree with the statement that the megalosporon endothrix is more amenable to treatment. As regards the latter, recent years have brought few improvements and no specific. In rebellious cases, Aldersmith pursues the general plan of using the old, tried remedies until the disease is localized in one or two spots, and to these croton oil is applied. Very properly, formalin is condemned as objectionable on many scores.

Alopecia areata is treated less exhaustively, but quite fully. Sabouraud's investigations are considered, but the author is not convinced of either the contagiousness or the parasitic nature of the disease. Like the majority of dermatologists, he thinks the French investigator has taken a large burden of proof-upon his shoulders. Aldersmith puts his faith in local stimulant treatment. The volume is unhesitatingly recommended to all whose evil fate has brought them to treat these bugbears among skin affections.

Report on Bubonic Plague. KAHN BOHADUR N. H. CHOKSY. Bombay: "Times of India" Press, 1897.

The report embodies a study of 939 cases treated in Bombay during the recent epidemic, and is probably the most complete study of the disease in the language. The author describes six varieties, pestis minor, ambulans, simplex bubonica, septica, pulmonalis, and non-typical forms. Of the mild cases, very few were seen, the total mortality standing at 73.26 per cent. for all cases; 60.34 per cent. excluding the moribund. Modes of infection are various: through the skin, when the focus may be destroyed and the attack lightened in severity; from the contents of buboes; from the sputum, and through inhalation. Contrary to other statements, in no case could infection be traced to rat bites. (It is commonly understood, however, the rodents are peculiarly susceptible and play no small part in disseminating the bacilli.) "For practical purposes, the period of one week may be considered safe for keeping suspects under observation." In other words, that is about the period of incubation. As regards special symptoms, very few cases (4.6 per cent.) showed multiple adenopathy, the involvement being regional and the femoral and inguinal being attacked in over fifty-five per

cent. of cases. As regards the genito-urinary organs, there was the usual fever-urine, with occasional hematuria. In males, priapism was noticed; in females, hemorrhage from the genitals and mammary inflammation. The cutaneous manifestations comprise blebs, serous or sanguinolent; cellulitis, "black boils," gangrene, and abscess. Expectant treatment was employed. Serotherapy in a few cases proved disappointing.

Skin Diseases in Children. GEORGE HENRY FOX, M.D. New York: Wm. Wood & Co., 1897.

The volume is a reprint of the series of articles first published by Dr. Fox in the *American Journal of Obstetrics*. It is hardly possible there is a dermatologist abroad in the land who has not had occasion to admire the author's photographic reproductions. His are pictures of the disease, not of the patient, and for this volume he has selected the best of the collection. Barring an occasional rather theatric pose, there is scarcely a criticism to be passed. The photogravures are worth the money expended upon them far surpassing both the colored plates and the half-tones. All of the commoner diseases of the skin in childhood are illustrated with several of the rarer, presumably for contrast. It is a pity that some uniformity of nomenclature cannot be forced, if necessary, upon writers on this subject. Personal predilections should give way to common usage. There is text enough to hold the pictures together, and, we regret to conclude, a formulary for the undoing of the unwary.

International Medical Annual. New York: E. B. Treat & Co., 1898.

This annual review is made up chiefly by English contributors, with a sprinkling of Americans. Fenwick has charge of genito-urinary matters; Colcott Fox, of skin. There is no attempt to make an exhaustive review in either branch, but the important work is accorded full attention. The work opens with a "Review of Therapeutic Progress," which is little short of appalling if we are to keep track of these new drugs. Fortunately, oblivion will claim many of them before another annual appears. Turning to the "Index of New Treatment," the feeling of depression is relieved, for in every department of medical science, the old, familiar names appear. This index occupies the greater part of the volume. Its name is rather misleading, because in the alphabetical lists much more than mere treatment is reviewed. It is really remarkable how much that is good has been condensed into this volume, both small and handy as compared with its fellow annuals, whose bulk is the greatest objection to their use.

Selections.

SYPHILIS AND CUTANEOUS DISEASES.

In Charge of Dr. Boleslaw Lapowski.

Cutaneous Horn of the Eyelid.—T. BALLABAN (*Przegland Lekowski*, vol. xxxvii, No. 16, 1898).

Two cases of this interesting affection, localized upon the lower right eyelid, both in women, are reported. From the histological examination the conclusion is reached that cutaneous horns belong to the class of papillomata, differing only from them in the peculiar growth of the epidermis and the intense degree of keratosis. The patients gave the author an op-

portunity to procure for histological examination horns in three stages of development, and he noticed that the papillæ, even in the horn, were unusually developed. This observation induces the author to propose for them the name of "keratosis papillomatosa."

Hereditary Keratosis or Tylosis Palmæ.—VAUGHAN PENDRED (*Brit. Med. Journ.*, i, p. 1132, April 30, 1898).

The author gives the clinical appearance of this rare disease, which he had an opportunity to examine simultaneously in three members of the same family. The disease appeared in unbroken succession for at least 150 years in the same family. The palms and palmar surface of all the digits showed hard, horny epidermis, cracked in many directions. The margin strictly outlining the hand was marked with a thin, red line. The whole thickness of the skin could be pinched up. The plantar surfaces presented a like appearance, except that the fissures were not so numerous as upon the palms. The lesion was symmetrical and appeared at birth in the form of a red area over the palms and soles. A table showing the existence of the disease in five generations of the family is given by the author.

Cocain Salt and Cocain Base.—UNNA (*Monat. f. Pr. Derm.*, vol. xxvi, No. 5, p. 239, 1898).

Unna advises the use of cocain powder for local anesthetic purposes. (Cocain hydrochlorate, 0.5 to 1.0, and magnesium carbonate, 10.0.) The powder is either to be applied directly upon the sore, or put upon wet cotton and the eroded surface then covered with it for ten to fifteen minutes before any painful procedure is undertaken. The above amount of anesthetic powder may last for months, not losing its properties, and for this reason is valuable in practice among the very poor. In cases of senile pruritus, without complications, he obtained good results from the use of one to two per cent. ether, or alcohol-ether solution of the pure alkaloid (cocainum purum Merck) applied by means of a spray or with a small quantity of collodium.

R	Cocain pure (Merck)	.	.	.	.	.	.	.	1.0-2.0
	Spirits of ether	.	.	.	.	.	.	ad	50
	Collodium	.	.	.	.	.	.	.	1.0.

He is of the opinion that in cases of pruriginous eczema, zoster, and in some forms of lichen planus the alkaloid in the form of an oil acts better than the salt.

R	Cocain pure (Merck)	.	.	.	.	.	.	.	1.0
	Almond oil	.	.	.	.	.	.	up to	50.

A Rare, Probably Parasitic, Skin Disease.—SAVEZIO CANNARSA (*Monasht. f. Pr. Derm.*, vol. xxiv, No. 5, p. 237, 1898).

Eight men and one girl, occupied for twelve to twenty-four hours in carrying Provence-cane (*Arundo donax*) came to the author suffering with the following symptoms: Eyelids, lips, scrotum, penis, and the uncovered portions of the body swollen. The portion of the scrotum in contact with the garments painful, compelling the patients to walk with everted thighs. After forty-eight hours the face, scrotum, and penis were covered with small, red, pin-head-sized points; disseminated, in the beginning; later, coalescing and turning into bullæ, with turbid, seropurulent contents. The hairy portions affected in the same manner. The conjunctiva was in a hyperemic condition, the sclerotic injected, photophobia absent. Temperature, 40.40° C. Coated tongue, nausea, constipation, headache, sleepless-

ness, and chills accompanied the skin symptoms. The urine was scanty, red, turbid, and fetid; micturition painful. After six to eighteen days all the symptoms disappeared and no marks were left upon the skin. The leaves of the plant were somewhat wet and of darkish color, and covered with a dirty whitish powder, which gave rise to a burning sensation when it came in contact with the skin or mucous membrane. One of the patients infected per coitum a woman. Her genitals became swollen, itchy, emitting a mucous, thread-like secretion. The powder was applied to a horse and produced the same irritating and inflammatory symptoms as in the first patients. Professor Brigi is of the opinion that here we have to do with a fungus—*dendrochium microsporum* of the *hphomycetes* family.

Operations upon the Sexual Organs for Prostatic Hypertrophy.

DR. V. STEINER (*Centralblatt f. d. Krank. der Harn-und Sexual-Org.*, pp. 1, 62, 1898).¹

As an offset to the above favorable showing, it seems well to call attention to seven cases of castration and one of vasectomy reported by Steiner. The cases chosen for operation were cases in which the ordinary methods had failed to give relief. There was no mortality, and no cerebral symptoms noted. In six of the cases there was practically no benefit whatever. In the case of vasectomy the relief was temporary only, the patient having recurrence of retention after his return home. In one case only was there any benefit, and in this case, curiously, there had existed complete atrophy of one testis and almost complete atrophy of the other many years before prostatic symptoms made their appearance. The patient, seventy-one years old, began to have urinary trouble seven years before, frequency and incomplete emptying of the bladder. Had had repeated attacks of cystitis, had made false passages and consequent hemorrhages. For three months had not urinated spontaneously, and entered the hospital with a distended bladder which was emptied by degrees only. When twelve years old had had a double epididymitis, the cause of the atrophy of the testes. Prostate was markedly enlarged, and by bimanual palpation a middle lobe was made out extending three-fingers' breadth above the symphysis. The fifth day after castration patient began to urinate spontaneously, but by far the greater amount was withdrawn by the catheter. This gradually improved until one month after operation the patient passed 1310 c. c. spontaneously, was catheterized once in the twenty-four hours, and 70 c. c. withdrawn. The hypertrophied middle lobe showed by palpation a distinct improvement. The author, however, gives no further record of the case.

A Case of Carcinoma, Metastases in Bone from a Primary Tumor of the Prostate. DR. S. M. CONE (*Johns Hopkins Hosp. Bull.*, p. 114, 1898).

The author reports a case of tumor of the tibia admitted to Dr. Halstead's service in the hospital. The patient had cystitis and a markedly enlarged prostate. No other organs were found involved. The leg was amputated. Sections from the tumor resembled endothelioma. The patient died nine months after, greatly emaciated. An autopsy was performed, and several metastases were found in the ribs, vertebrae, and in several other situations, one being an enlarged gland near the trachea. The prostate was the probable starting-point, this showing a large carcinomatous infiltration. Several similar cases reported by Von Recklinghausen are incorporated in the report.

¹ See July No. page 353.

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Original Communications.

LUPUS ERYTHEMATOSUS: ITS AMENABILITY TO TREATMENT.¹

By JAMES C. WHITE, M.D.,
Professor of Dermatology in Harvard University.

WHENEVER I present a case of lupus erythematosus to the students at my clinic I am in the habit of saying to them: Gentlemen, I show you an example of a disease which, although not incapable of recovery, is the most refractory to treatment of all cutaneous affections. I said this less positively, no doubt, when I first began to teach, and after forty years of observation of cases, of experimentation upon them, and of reading the experience of my colleagues all the world over with due reservation, I hold to-day the same well nigh hopeless opinion with regard to its curability; and this in spite of the endless list of remedies which have been used against it with the assurance on the part of their sponsors of their efficacy. If you examine the general treatises on dermatology published within this half of our century, you will find a repetition from earliest to latest of the same standard methods of treatment in all of them with ever-increasing additions. If you look into many special articles upon the subject written by dermatologists of note of all countries within the past ten years, you will be impressed by the great number of new remedies of wonderful power over the disease. It would seem on reading most of them as if there were no disease so favored in the happy means of control, and as if

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we had but to select any one out of this great abundance at hand to do our will with it. But those of us who lack this buoyant enthusiasm of the explorer in the ever new fields of inventive therapeutics, which taxes the ingenious skill of the modern synthetical chemist, recall that disheartening lesson of experience that new remedies are most effective in their period of nascent infancy, and that the curability of a disease is in inverse ratio to the length of the list of the means recommended for its cure. This rule determines in fact the exact place of lupus erythematosus in relation to cutaneous therapy. One may note in the discussions in two recent gatherings of dermatologists, national and international, concerning the treatment of this affection the same discrepancy of opinions with regard to certain new remedies: that what has been stated by the one man to be successful in the few cases has failed entirely with others in the many cases. Indeed of most of what has been written and said of the action of individual remedies in the disease the serious criticism applies that the comparative percentage of cures and failures is never given.

I write in complete ignorance of the nature of the conclusions my colleague in the introductory presentation of the subject, Dr. Robinson, may offer for your consideration regarding the etiology of lupus erythematosus. When we arrive at any positive scientific basis of opinion upon this matter, and have exhausted the knowledge to be gained by the study of its anatomy, then we may possess the data for the foundation of a rational system of therapeutics for the disease. At present, in my opinion, we are ignorant of them. It is legitimate to offer a theory concerning the nature of a disease, and to proceed to experiment in treatment on such basis, and to draw conclusions from results in support of such assumption, so far as they are warranted. Unfortunately, this is rarely possible. We have so little positive knowledge of the specific action of drugs that we can seldom apply it, even in aid of diagnosis, far less safely throw light upon the obscure questions of etiology. Take as an illustration the confidence with which we appeal to the use of the iodid of potash in certain doubtful scaling dermatoses to assist us in determining whether they are psoriasis or cutaneous manifestations of syphilis. We all will confess, no doubt, how impossible it is at times to arrive at a positive diagnosis on the data then available, and how unquestionably we have accepted the results of this remedy upon the affected areas. If they have disappeared rapidly, why that proved that they were syphilitic in character. Now I no longer believe in the trustworthiness of this test, for my experience of the past two or three

years with regard to the influence of iodid of potassium over chronic areas of psoriasis has convinced me that it may cause them to disappear with the same marvelous rapidity as the syphilitic lesions they so puzzlingly simulate. Please note I do not say as surely, but frequently enough to destroy the value of the drug as a diagnostic test in such cases. If now we must cease to draw positive conclusions in the case of a long known drug we have come to class as possessing specific power over certain cutaneous tissue changes, how can we draw reliable inferences from the action of new and untried remedies as to the nature of affections against which they are first used? Yet we have seen such conclusions confidently drawn from the use of the "tuberculin," old and new, in lupus erythematosus. Given a disease of unknown nature, a remedy of untested properties, productive of an unstudied action upon forms of cutaneous tuberculosis, a similar action, it may be, upon the former, *ergo* lupus erythematosus is a form of tuberculosis. Such methods of experimentation and inference under the name of science are hardly less puerile than the same conclusion would be from the fact that tuberculin and tuberculosis both begin with T. I would say nothing to discourage serious experimentation on this line, for I think it bears promise of infinite value, but let us wait until it has furnished us with sufficient and proper data, before attempting to apply them in the study of the etiology of cutaneous disease.

Concerning the real relations of lupus erythematosus to tuberculosis, I would say here that notwithstanding the evidence presented in favor of such connection by Professor Boeck in his recent paper, "Die Exantheme der Tuberculose" (*Archiv für Derm. und Syph.*, Bd. xlii, Heft 1) and by others, I cannot regard them of convincing weight. "Toxins" are at present a fascinating theory, but clinical proof for or against the theory of their existence and action must be appealed to on the grand scale to be conclusive.

One of the most significant facts demonstrated at the recent Lepra Conference at Berlin was that in those earliest cutaneous manifestations of the disease the prodromal erythematous areas, ascribed hitherto to toxin influence, bacilli have been recently found to be universally present, even in contiguous portions of the skin presenting no macroscopical changes.

I see no other way at present to approach the subject assigned to me by the courtesy of the Council than by the path of pure empiricism; to consider not what remedies are likely to be, but what remedies have been found to be of greatest benefit in the treatment of lupus erythematosus in the greatest number of cases. Of course the

old question raises itself at the start: Are we dealing with a so-called constitutional disease demanding general treatment, or is it a local affection to be overcome by external means directly applied? On the one hand Mr. Hutchinson says: "You will prescribe first for the patient, and secondly for the disease." At the other extreme, Kaposi's statement: "Only external remedies are of any avail." For myself I agree with the former so far, that attention to the general condition should never be neglected, and that restoration to a healthy state, if lacking in this respect, would be of material benefit upon the local affection while under external treatment, but no more so than such restoration would contribute in like manner to the improvement of any other local pathological process under local remedies. In other words I do not recognize the power of any remedy to exert specific control over the course of this disease. I do not believe, that is, that it can be positively predicted of any known drug that under its administration internally a series of cases of the disease will show progressive and material signs of improvement, or that real recovery would be effected in a single instance. Yet I find it asserted in the writings of dermatologists of recognized authority that the following remedies among others are of service when administered internally in this affection, even to the extent of a cure.

LIST A.

Lemon juice.
 Cod-liver oil.
 Liquor ammoniæ.
 Ichthyol.
 Chlorate of potash.
 Iodid of potash.
 Iodid of starch.
 Iodoform.
 Phosphorus.
 Oleate of copper.
 Arsenic.
 Decoctum Zittmanni.
 Ergotin.
 Pyrotoxin.
 Tuberculin,
 and of latest date,
 Salicin

which, Dr. Crocker states, when used with calamin lotion, cures the disease.

Now I am ready to accept any claims for the specific action of all these drugs when the following conditions are observed:

1. No other treatment shall have been employed for a considerable time before the trial begins, and there shall be no use of external remedies during the trial.

2. The experiment shall be conducted upon a considerable series of consecutive cases representing all types and grades of the affection. It shall extend over a continuous period of sufficient length to determine the positive or negative action of the drug employed, or until a cure be effected, or acknowledged to be hopeless, under it. Such a test can be best or only applied in hospital patients under complete control. In judging results it is not to be forgotten that spontaneous involution of the disease is by no means infrequent. Can any member present recall such a foundation for the claims made for any of the drugs cited as capable of curing the disease? Would it be unjust to say that they rest in the majority of instances upon results noted in a small number of cases under observation for short periods of time only, that local remedies were generally employed also, and that negative results and failures are rarely chronicled?

I offer no experience of my own based upon such exact methods of experimentation with regard to any of the list, but of the controlling action upon the course of the disease of those I have used, I have seen no reason to express a hopeful opinion.

And of the action of external remedies what shall I say? Can we speak more positively of their power over the disease? We may certainly claim to do so, I think, because we may study their action upon the diseased tissues directly. We can observe the changes which follow their application to one portion of an affected area, while the adjoining portion is left untreated, or we may apply several remedies to individual patches of the disease simultaneously, and watch the comparative results. We are not likely to misinterpret favorable changes which really follow such applications, however much we exaggerate them, or claim for them infallible powers from a too limited experience. That element of individual temperament can never be eliminated from the results of human observation.

But with all the positive knowledge thus gained of the action of external remedies, it remains a purely empirical one. Leaving out of the list those which destroy the diseased tissue, the caustics that is, and those which act mechanically, we cannot explain the reason of their action, nor infer *a priori* whether any untried agent will be of benefit or not. There are some fifty external agents recom-

mended for the treatment of the disease. We may make a rough classification of them, and say that some act mechanically, as scarification, curetting, and electrolysis; some are caustics, as strong acids, alkalies, and heat; some soothe, some stimulate, but concerning the great bulk of them we cannot characterize the action. Some of them are long in service; they survive because they are proved to be the fittest. Others are of modern introduction; their names even are strange to us, and we may not yet know or comprehend their chemical composition, and they are likely to be soon forgotten. Probably the most sanguine practitioner would not claim for any of them that they are always sure of working a cure. Certainly, the most experienced and critical would be obliged to confess that even the most reliable of them often fail to do any good at all. I present a list of the principal of them.

LIST B.

Soothing:

- Washes: Hydrarg. submur., \mathfrak{z} i; aq. calcis, oj. \mathfrak{M} .
 Zinc. oxid, \mathfrak{z} ss; glycerin, \mathfrak{z} i; aq. calcis, \mathfrak{z} viii. \mathfrak{M} .
 Calamin., \mathfrak{z} ss; glycerin, \mathfrak{z} ii; aquæ, \mathfrak{z} viii. \mathfrak{M} .
 (Boeck's) Talci, amyl, aa. \mathfrak{z} iiss; glycerin, \mathfrak{z} i; aq. plumbi, \mathfrak{z} v. \mathfrak{M} . Liquor plumbi.
 Ointments: Zinc. oxid, gr. x to xxx; adipis, \mathfrak{z} i. \mathfrak{M} .
 Bismuth. subnit., \mathfrak{D} j; amyl., \mathfrak{z} i; adipis, \mathfrak{z} i. \mathfrak{M} .
 Ung. diachyl.
 Paste: Zinc. oxid, \mathfrak{z} ss; amyl., \mathfrak{z} iii; vaselin, \mathfrak{z} v. \mathfrak{M} .

Stimulating:

- Sulphur.
 Potass. zinc. sulphid wash.
 Iodin tincture, "iod-glycerin."
 Mercury: oleate ammonio-chlorid ointment, iodid ointment, emplast. mercuriale, sublimate colloidion.
 Tar ointment.
 Ol. cadinum.
 Ichthyol.
 Creosote.
 Chrysarobin.
 Salicylic acid, with soap plaster, with creosote plaster.
 Liq. carbon. detergens.
 Iodoform.
 Benzolin.
 Resorcin

Vigo plaster.
Fowler's solution.

Caustics:

Potash.
Lactic acid.
Carbolic acid.
Pyrogallie acid.
Glacial acetic acid.
Chloracetic acid.
Mineral acids.
Acid nitrate of mercury.
Nitrate of silver.
Arsenic.
Ethylate of sodium.
Blistering.
Thermocautery.

Mechanical:

Scarification, punctate, and linear.
Curetting.
Electrolysis.
Collodion.

Indefinite:

Tinctura ferri perchlorid.
Glyceral tannin.
Naphthol ointment.
Iodized phenol.
Hydronaphthol plaster.
Thilamin.
Pyoktanin.

Before making a choice from them in any case, we may find some guidance in our selection by the predominant lesions in the diseased areas present at the time. The most important of these features are: hyperemia, a tendency to recurrent dermatitis, folliculitis, scale formation, atrophy, and scar tissue. If the case present an inflammatory type, or if the patient's skin be easily excited by external impressions, the most soothing applications should alone be employed until such condition be allayed, and will bear, if needed, more stimulating remedies. They may be used with advantage from time to time in the course of every case to meet recurring conditions of hyperemia, either inherent to the affection or resulting from overstimulating treatment. The call for such interruptions in the use of more vigorous remedies should never be disregarded. In

cases of acute multiple type these milder measures are all that the skin will generally tolerate. In every case I think it judicious to try the action of soothing applications, or those which would be classed as mildly stimulating, at first, and, I may add, I often adhere to them throughout. I do not hesitate to say that I have derived far more benefit from them in the greater number of cases in the long run than from the most severe measures known to us. If we were obliged to give up nine-tenths of the agents upon the list presented, I would retain the mildest tenth of them as the most reliable. I should place upon this reserved list perhaps the following: black wash, the zinc oxid, calamine and Boeck's washes, and the zinc paste as preparatory or occasional applications, and sulphur ointment, or a zinc oxid and sulphur wash, white precipitate ointment, salicylated soap plaster (ten to twenty per cent.), and lactic acid as the subsequent and stimulating remedies. These and several other agents, which might be placed in the same class, as creosote, carbolic acid, pyrogallie acid, chrysarobin, and nitrate of silver are as severe measures as I resort to. They produce no subsequent scarring, and at this point I draw my line. I do not think we are justified in substituting for an affection upon so conspicuous a site as the face, which produces comparatively little disfigurement, the formation of permanent scar-tissue far more disfiguring, or at least in resorting to them before we have exhausted the list of applications which may do as well without such objectionable after-effects.

I must say that I have not tested the action of every agent on the lists, especially those most recently brought to our notice, and I have seldom used the mechanical methods, the curette and scarification, or the more destructive means, cauterization by mineral acids and heat, but I have subsequently treated not a few cases which have been thus treated by others, and cannot recommend their use. I have attempted in two cases to annihilate limited areas of the disease upon the trunk with fuming nitric acid by repeated applications, and have seen the process revive beyond the cicatrix in both instances. I know that some of my colleagues here have given high value to the Vidal method by scarification. I hope they will tell us if they retain this confidence in it, and if they have obtained by it many permanent cures.

I should place next upon my list of remedies, to be occasionally used when the milder means above mentioned have failed to act, those which have been of greatest service in my hands, iod-glycerin (iodin, pot. iod. aa \mathfrak{z} i, glycerin, \mathfrak{z} iv) and emplastr. mercuriale.

When I speak of advising the use of this or that individual remedy or plan of treatment, what do I really mean? That they are capable of curing the disease, or what should I answer were I asked how many cases of lupus erythematosus have you cured in any way? I mean that these remedies produce sometimes a favorable impression upon the diseased skin, upon some portion only, it may be, of the affected area, if extensive, and that this effect is often temporary only, and that such partial or short-lived results are obtained moreover only by the long-continued, most persistent use of them. They often fail to act at all favorably, those even on which we place the greatest reliance, and it can never be predicted with certainty what the controlling action of any of them will be in any case. I mean that the number of complete and permanent cures which I can claim to have effected is sadly small. I do not reckon as cures cases which vanish from my observation, however much they may have improved whilst under it. The wonder is how great is the number of cases which continue to submit to your experimentation through long years of faithful attendance, while the failure or incomplete results of remedies are as palpable to them as to you.

Nevertheless, let us not despair of being able to say honestly some day to every patient: Yes, I can cure lupus erythematosus, instead of, as at present, I cannot promise to cure you, but it is worth while trying.

THE TREATMENT OF LUPUS ERYTHEMATOSUS.¹

By P. G. UNNA, M.D.,
Hamburg.

MR. PRESIDENT AND GENTLEMEN:

I beg to thank you sincerely for the honor you have done me in inviting me here to deal with the treatment of lupus erythematosus. I hope, however, not to be obliged to detail the innumerable remedies, which have been recommended for this very obstinate disease, nor even to mention all of the more restricted number, which I have myself applied in the course of a more than twenty-years' practice. I rather imagine that you expect to gather from me the clue, which leads safely through this therapeutical labyrinth, or to speak more modestly the clue which I have followed myself.

For—on this point we must be quite clear—a generally recognized method of treatment, and one which necessarily springs from

¹ Read before the Section of Dermatology, British Medical Association.

the nature of the disease itself, cannot exist as long as we are totally ignorant of the genesis of this disease.

But even assuming that those authors whose authority I myself so highly respect, such as Besnier, Boeck, Brocq, Hallopeau, and Jamieson are right in their belief that this skin disease has any direct connection with tuberculosis, still in the absence of any generally recognized constitutional remedy for tuberculosis, the difficulty of the local treatment would equally remain, with which we who do not believe in this connection have equally to struggle; and I must confess that even the arguments recently adduced by Boeck and Hallopeau, in favor of the tubercular nature of lupus erythematosus, have failed to convince me.

Now, if etiology fails to afford us a firm standing ground for the study of therapeutical methods, yet the pathological histology still remains to give us an almost equally firm foundation. Indeed, if we knew nothing of this, we should indeed be left to follow the blind path of mere empiricism. But fortunately for us the histology of lupus erythematosus has recently been so thoroughly investigated that it now gives us as clear a definition of the disease as clinical observation has ever done. If we only succeed in establishing a complete harmony between the characteristic symptoms of its pathological anatomy and the chief properties of our remedies, we shall raise ourselves above the low level of empiricism to a really rational treatment and recognize the clue, which will lead us safely through the therapeutical labyrinth. In any case some remedies are sure to remain, which give us inexplicable results, and must for the time be reserved for future investigation; perhaps the study of etiology will evidently throw light upon the action of these remedies.

What, therefore, I hope to offer you as a guide toward the treatment of this disease is of an anatomical nature. The histology of lupus erythematosus is governed by a striking contrast between the processes going on in the epithelial layer and the subjacent cutis. The epidermis is exceedingly dry, hyperkeratotic, and shows horny processes penetrating downward, which were for a long time mistaken for comedones. The cutis on the other hand shows dilatations of the lymph-spaces and lymph-channels, edema of the papillary body, with the development of larger lymph pools, and a peculiar moist canalization of the cellular territories, which is produced by the atrophy of the collagenous tissue, and the breaking down of the feebly rooted cells, carried away by the lymphatics. From the outward appearance of the dry centrally depressed patches we can scarcely judge that beneath the hard firm surface is situated an ede-

matous, softened, rarefied, readily yielding cutis. One is, therefore, always surprised if, upon very slight irritation, *viz.*, a simple use of a soothing ointment, great inflammatory edema suddenly appears and the patches rise, spread peripherally in a highly unpleasant manner. As I said two years ago, in this very place, during a demonstration of such a case, the sensation is that of the traveler who is crossing an apparently firm green meadow and suddenly finds himself plunged into a bottomless morass.

The histology of this affection, therefore, leads us—and this is the first and chief rule—to use, in spite of the outward dryness, desiccating agents, namely, such remedies as are suited to reduce an inflamed edematous patch into a pale, dry, and uninflamatory condition of skin; and, as a second and equally important rule, which is frequently transgressed, to avoid carefully every remedy which might produce inflammatory hyperemia and edema, even if in other respects it answers well to certain indications.

From this point of view, gentlemen, let us next consider the internal treatment of lupus erythematosus. We may divide the different internal remedies in use into two groups: (1) those which have a favorable influence upon the injurious vasomotor paresis of the face: as the alkalies, carbonate of ammonia, ichthyol-ammonia, salicylate of soda, ergot, and (2) those to which a not easily definable specific action has been attributed, as phosphorus (Bulkley), salicin (Crocker), tuberculin, iodid of starch, iodid of potassium, arsenic; as to the latter I have only obtained negative results with the iodids and arsenic; with tuberculin I have produced good effects, but no cure; with phosphorus and salicin I have had no personal experience. On the other hand, I can point to favorable results from the use of carbonate of ammonia, ichthyol, and salicylate of soda in all cases where a tendency to edema and hyperemia of the skin paralyzed the effect of external applications. But I should not like to state (and I do not think that any one else has ever stated) that this disease has in a single instance ever been cured by any of these internal remedies alone without the aid of external means. On the contrary, many cases have certainly been cured by the sole use of external applications. This fact emphasizes the local and unconstititutional nature of the disease, but in spite of it we are not precluded from the hope that in course of time some specific internal remedy may be found and all suggestions in this direction deserve to be thoroughly tested, for it is of the greatest advantage for the ordinary practitioner, who is not in possession of the entire technical dermatological apparatus, as well as for the public welfare, that we gain more and more of these specif-

ics. But in the small advantage derived from some internal remedy, which is not in this sense a specific and which is meant to be used along with external applications, I confess I could never feel any burning interest. I believe that we are in a condition to overcome by a more exactly individualized method and technic of external application those difficulties, to conquer which such internal remedies have been requisitioned. If any one should contradict me by saying that it does not matter in what way the treatment is conducted, provided that it succeeds in curing the patient, I must express my conviction that our advantage is greater the more we understand disease and the exact value of the different remedies we use to counteract it.

Now, gentlemen, there can be no doubt that we have far more opportunity of observation when we use external remedies. We may in each case of lupus erythematosus apply two or three different remedies at the same time to various patches of the disease. Then after a short time it becomes clear not only to us, but also to the patient, which of these remedies is producing the most effect and is being best tolerated. It is the comparative study of the therapeutic effects of different remedies, which at the same time most vigorously arouses our own scientific interest and produces a conviction in the mind of the patient that these are remedies and that there is a help ready to his need. My own experience of the cure of lupus erythematosus by external means (putting aside some specially refractory cases) has been as a whole not so discouraging as that of my friend, Professor White of Boston, who some time ago expressed a rather hopeless opinion about the curability of this disease, nor do I believe that the good results which I have had especially in the last few years are to be explained by saying that I have been the victim of deception produced by spontaneous cures, for I have seen lupus erythematosus partly but never entirely disappear of itself.

EXTERNAL REMEDIES FOR LUPUS ERYTHEMATOSUS.

I. GROUP.—DESICCATING REMEDIES.

- (a) *Powders*: *Oxid of zinc*, *calamine*, sublimate and oxychlorid of bismuth, calomel, oleate of mercury, *terra silicea*, *bolus alba et rubra* (Fuller's earth), *carbonate and silicate of magnesia*. *Powder-bags*.

℞ Zinci ox., boli rubræ, aa. 2, boli albæ, magn. carbon, aa. 3, anyli, 10.

M. S. *Pulvis cuticolor*.

- (b) *Pastes*: *Zinc-sulphur paste*, lead-vinegar paste.

℞ P. zinci sulfureta 20, resorcini, ichthyoli, aa. 1.
M. f. pasta.

- (c) *Washes*: Aq. plumbi, aq. calcis with oxid of zinc, carbonate of magnesia, etc. *Bæck's* liniment.

II. GROUP.—COMPRESSING REMEDIES.

Collodion with ichthyol, soft soap, salicylic acid.

Gelanthum with ichthyol, soft soap, salicylic acid.

Zinc gelatin, compressing bandages, masks.

℞ Collodii, 20, soft soap, 2-4.

℞ Gelanthi, 20, ichthyol, 2-5.

III. GROUP.—ANTIHYPEREMIC REMEDIES.

- (a) *Plaster-mulls or pastes*: *Pyraloxin*, oxid of chrysarobin, ichthyolsulfon, mercury, pyoktatin.

- (b) *Wet bandages*: *Alkalies and alkaline soaps, soft soap, salve soap, Hebra's spirit of soap.*

- (c) *Cooling lotions*: Acetate of lead and aluminium, lime-water, camomile water, cherry-laurel water.

- (d) *Microcautery.*

℞ P. zinci, 20, pyraloxini, 2-5.

℞ Zinci oxidi, 10, pyraloxini, 10.

F. 1 meter plaster-mull.

℞ Sapon. unguinosi, 20, ichthyolsulfon, 2-5.

F. medicated salve-soap.

IV. GROUP.—NECROTIZING REMEDIES.

(A) *Peeling remedies.*

- (a) *Salicylic-soap plaster-mull, salicylic-cannabis plaster-mull.*

- (b) *Salicylic-collodion.*

- (c) Past. zinci, resorcin æth. soluti, ichthyoli, aa. pp. aeq.

F. *Peeling-paste.*

(B) *Ulcerative Remedies.*

Pyrogallol in strong doses as an ointment, sublimate as salve and collodion, Paquelin-cautery.

V. GROUP.—INFLAMMATORY REMEDIES.

Tincture of iodine, iodine and glycerin, perchlorid of iron, nitrate of silver, nitrate of mercury, trichloracetic acid, Fowler's solution, carbolic acid, naphthol-B, pyrogallol and chrysarobin in weak doses, resorcin in strong doses, stroking with Paquelin, scarification, electrolysis.

VI.—SPECIFIC?

Alkalies and alkaline soaps, mercury, pyraloxin.

We may divide into six categories the external remedies in use against lupus erythematosus, taking account of the important rules, which I have just mentioned. Three of these, including mild remedies, may be recommended in all cases, the drying, the compressing, and those remedies which tend to reduce hyperemia. Next we have two categories of much more doubtful value, the necrotizing and the inflammatory, to which we may add, as the sixth and last, the specific remedies to be marked with a sign of interrogation. The drying remedies rightly deserve a very wide application, either as powder, paste, or wash with powdery precipitate. All powders in use for skin diseases may be employed, the mineral as well as the

tend to produce compression by rendering the horny layer dry and inelastic, and promoting the keratinization. But in order to deplete the lymph- and blood-vessels we need stronger compressive means, the best of which is collodion; next to this we have gelanthum, zinc gelatin, and lastly the compressory bandages introduced by Engmann and myself. The elastic rubber bands we can, unfortunately, not use for the face. Most to be recommended are collodion and gelanthum, and more so as vehicles for other good remedies; as such, ichthyol, soft soap, and salicylic acid have proved of special value with collodion. The same and caustic potash (1-1000) with gelanthum. Naturally, the collodion produces more compression than the gelanthum, but the latter may be washed off at any moment with warm water. The collodion is, therefore, better for unexposed parts and in hospitals; the gelanthum, better in private practice and for the night only; but I have had a few lady patients who did not object to the use of collodion on the face and in the daytime. The effect of such a varnish of ichthyol-collodion, or soap-collodion applied two to four times a day is often astonishing. Quite lately I showed in my post-graduate lectures given at Hamburg, a patient in whom a long-standing lupus erythematosus disappeared totally under continued applications of soap-collodion. One must only be careful that the collodion is perfectly neutral, as in many instances the collodion of commerce has a strongly acid reaction. For more indolent cases I prescribe:

R	Collodion	.	.	.	20	Collodii	.	.	.	.	20
	Sap. virid.	.	.	.	2-4	Sap. virid.	.	.	.	.	2
M.						Acid. salicylici	.	.	.	.	2
						M.					

For irritable cases.

Or better still.

R	Collodii	.	.	.	20	Collodii	.	.	.	.	20
	Ichthyoli	.	.	.	2	Ichthyolsulfon	.	.	.	.	2

- In a third group I combine those mild remedies which reduce hyperemia and induce dryness of the cutis without at the same time producing either surface dryness or mechanical pressure. To these belong pyroloxin, chrysarobinum oxydatum, ichthyolsulfon, mercury, pyoktanin, and lastly the soaps and alkalies. My microcautery, if properly used, belongs to this group of remedies. The pyroloxin, which I introduced to the profession in this place two years ago for the treatment of lupus erythematosus, eczema, and psoriasis, is a pyrogallol, modified by oxidation, which has lost its inflammatory and toxic properties on the healthy skin, but yet diminishes hyperemia and inflammation in the diseased parts. Pyroloxin has in the

meantime and with reason been recommended by Jamieson for eczema keratodes of the palms. This is a disease which has a certain analogy with lupus erythematosus in its obstinacy and masked inflammatory nature. The oxidated chrysarobin also, which has by oxidation become ineffective for most parts of the body, is of good effect in cases of great irritability in the facial region, where this affection takes the butterfly form, because in that part the vasomotor system is known to be specially weak.

Ichthyol contains in its ichthyol sulphate a substance irritating for some of our skin diseases. If this be extracted there remains the ichthyolsulfon, an oily substance, which is quite harmless and, nevertheless, tends to reduce inflammation like ichthyol itself.

Pyoktanin has a similar effect, but because of its disfiguring color is only fitted for hospital treatment.

Also, pure metallic mercury, as we have long known, has a singularly favorable effect, especially in the form of plaster and soap. The salts and other preparations of mercury have by no means so good an effect; they act either too weakly—as the oxid and subchlorid, or too irritatingly, as the perchlorid and nitrate.

The alkalies and alkalin soaps deserve a still wider application, that is to say the caustics and the carbonates in weak doses, then soft soap, my salve soap (potash soap with an excess of fat), and Hebra's spirit of soap. These approach from an anatomical point of view the ideal remedy for lupus erythematosus, for they reduce not only the hyperkeratotic surface, but also the hyperemia and inflammation of the cutis at the same time. To attain this good result we must apply them in watery solutions, and be careful not to allow the horny layer to become dry, otherwise the action of the alkalis ceases. The best form of application is, therefore, the wet bandage, *viz.*, bandages soaked with alkali and covered with impermeables, such as zinc plaster-mull or my impermeable masks. An excellent way of applying alkalies is also to make a lather of any of the above-mentioned soaps, softly wipe the affected and well-lathered parts for some time with a sponge and apply afterward a bandage moistened with water, lead water, or some other alkalin liquid. Every day, as the tolerance for this treatment increases, we may prolong the duration of the lathering, and we often notice in this way very rapid improvement.

In contrast to the alkalis, the other remedies, such as pyroloxin, oxydated chrysarobin, and mercury, must be applied in the dry form of plaster-mulls or pastes, and may well be combined with drying remedies, *viz.*:

R	Paste Zinci	20
	Pyroloxiini	2-5
	M. F. Pasta.	

They may also be mixed with soaps, lathered on the skin, and then covered with a wet bandage.

R	Sapon. kalini unguinosi	20
	Ichthyolsulfoini	2-5
	M. F. Sap. unguinosus. S. Salve-soap.	

Even four of these remedies may be with good effect applied at once, *viz.*: We may use a salve-soap containing pyroloxin, cover it with a bandage moistened with caustic potash (1-5000), and fix the whole with a mercury plaster-mull.

The medicated salve-soaps are also very suitable for the treatment of lupus erythematosus of the scalp. In this place, in order to prevent evaporation, fatty preparations should be applied. But generally we must be careful not to use ointments and salve-mulls, especially on the nose and cheeks, for after a time erythemata appear, which favor a development of the disease. The effects of otherwise excellent remedies may even be ruined by a fatty vehicle. Fats should be replaced by pastes or cooling salves: *i.e.*, ointments containing watery fluids (like ordinary cold cream). The latter may sometimes take in the daytime the place of a stronger night treatment and may contain, for instance, acetate of lead or aluminum, lime-water, camomile water, cherry-laurel water, and so on.

In connection with the remedies of this group may be mentioned the microcautery, the inflammatory effect of which, under careful handling, may be disregarded. We produce by it at once a complete closure of the blood-vessels and capillaries, and thus its action in checking hyperemia is similar to the action of the antihyperemic remedies. It is a good method to combine with these remedies the use of a microcautery. We may puncture the most inflamed and edematous spots, and especially the red margins, at intervals of two to three mm., and cover the cauterized patches with ichthyol-colloid, ichthyol-gelanth, or a bandage moistened with ichthyol.

These three groups of mild remedies I consider not only the best, but also, especially the third group in almost all cases, sufficient to effect a complete cure. They perform this, not perhaps quickly but surely, and without causing much annoyance to the patient.

I cannot say the same for the following groups. The necrotizing remedies are supposed to destroy at once the diseased patch, by chemical or mechanical means, or at least to lay it open by thinning or removing the epidermis. Only the former have a definite and justifi-

able indication, where the patches are covered with a very thick, horny substance and yield too slowly to other remedies. Next to the salicylated collodion, salicylic soap and salicylic-cannabis plaster-mull have proved most valuable for the purpose. If we decide to apply in such cases a peeling-paste, I would advise, in order to avoid ulceration, a small percentage of resorcin and add a certain amount of ichthyol.

R Pasta zinci.
 Resorcin
 Æthere soluti } aa pars æq.
 Ichthyoli
 M. F. Peeling-paste.

As for the group of ulcerative remedies, I can only recommend them with the greatest reserve, although they are so extensively employed. The chief representatives of this class are pyrogallol in strong doses and in the form of ointment, sublimate as ointment or with collodion, and the cauterization with Paquelin. To the same series belong the less usually applied chlorid of antimony, ethylate of sodium, and the well-known mixture of carbolic acid, tincture of iodine, and chloral-hydrate in equal parts. After the necrosis has been produced I would recommend the elimination of the necrosed parts and the process of cicatrization to go on under mercury—or mercury and carbolic acid—plaster-mull. I will not deny that in this way definite cures of single patches and even of single cases may sometimes be effected. I have seen such myself, and up to three years ago, like most of my colleagues, I continued to follow this system. But about that date, having by chance a considerable number of such cases to treat at once, I began definitely to give it up, because in most cases soon after the scars were healed the disease returned. I go so far as to believe that recurrence in this affection is mostly due to the use of the remedies comprised in these two groups, which are too strong and difficult to control, and, therefore, always perilous. It is true that, for the doctor as well as for the patient, tried by a long and unsuccessful course of treatment, the rapid and apparently thorough destruction of long-standing patches is some consolation, and the latter is unwilling to put up with the unnecessarily deep scars which follow, because he believes that he is at length on a safe path, but this confidence is often bitterly frustrated and the patient plunged into despair by a partial or general recurrence.

I cannot express myself with much more favor on the widely employed group of inflammatory remedies, such as tincture of iodine, iodine glycerin, perchlorid of iron, nitrate of silver, nitrate of mer-

cury, trichloracetic acid, Fowler's solution, carbolic acid, naphthol- β , pyrogallol and chrysarobin in weak doses, resorcin in strong doses, to which we may add stroking with the Paquelin, scarification, and electrolysis. Each of these remedies has some one to recommend it, and it is quite conceivable that the personal skill which a dermatologist may gain by continual use of his favorite remedy may enable him always to keep within the limits of a reasonable application. He understands how to avoid those rocks with which the use of these agents is surrounded; but for the ordinary practitioner and for general employment the use of these means will always remain too dangerous and unreliable. They are only to be recommended in a few cases, such as lupus erythematosus of the scalp and for specially indolent patches on the body.

To detail all these unreliable remedies would take too long. I will only mention the very newest recommended by Schütz—the Fowler solution. Only in one case have I ever noticed a continual improvement by its means and this was an extremely indolent case in an old peasant woman. But in four other irritable cases, the success was deferred or even rendered questionable by erythema and edema, and I had the impression that I should have made a quicker and safer cure with soap and collodion; still, I think that Fowler's solution is one of the safest of this class of remedies and I should like to ask whether this superiority is caused by the arsenious acid itself or partly, also, by the excess of alkali necessary to keep it in solution.

Let us now glance back at the numerous remedies contained in these five groups, to see if among them there are any to which we may, with reason, give the title of specific, on account of the speed, safety, and certainty of their action. I am sorry to say the results of such an investigation are somewhat scanty and dubious. The recognized mark of a specific is, that independently of the momentary state of the tissues, and under the most various histopathological conditions, it always produces an easily recognized favorable change, as, for instance, mercury in all forms of syphilis. Here we must assume that the remedy attacks the actual cause of the tissue-change. Now in the case of lupus erythematosus it is only the group of alkalies and soaps which seem to me, in the light of modern experience, to approach this definition. Consequently the methods and the extent of their employment increase every day. In the second rank mercury and pyraloxin may be said to have a specific action, if the experience of the profession confirms the good results which I have obtained with the latter. I hasten to conclude and should like, in

summing up what I have said, to draw up a short scheme of treatment for the practical physician in the light of my own experience during the last few years. From this scheme I, of course, exclude all perilous, unreliable remedies or those which assume a special personal skill.

The first question for the doctor after diagnosis of lupus erythematosus to ask is whether he has to do with an irritable or an indolent case. In general, the irritable cases are those on the cheeks, nose, eyelids, ears, and backs of the hands, especially if the patches are only slightly hyperkeratotic, swollen, and of a dark-red color. The indolent cases are those on the scalp, the lateral parts of the face and neck, and on the rest of the body. Next to the seat of the disease, the personal factor plays an important part, partly because the vasomotor paresis of the vessels of the skin begins in each individual at a different point of irritation and partly because each individual may possess a different idiosyncrasy in his tolerance of the various remedies, which are capable of producing extraordinary irritations.

As we cannot, however, know beforehand whether an apparently indolent case may or may not react too strongly under a given treatment, the general rule should be to begin the treatment always with one of those mild remedies mentioned and not to proceed to stronger ones till the former have proved not strong enough. Therefore, the doctor can never be wrong if he commences with nothing stronger than lead-water dressings, but he may be wrong and sometimes he may have to repent it, if without a cautious exploration of the field he begins at once with a strong ointment of pyrogallol.

A cautious treatment may, therefore, for instance, begin with bandages of lead-water at night or the application of a powder-bag, and during the day with a dusting of pulvis cuticolor; or you may prescribe for the night a zinc-sulphur paste, with ichthyol or resorcin eventually, to be rubbed in; or a gelanthum, with ichthyol or soft soap, or with both. Under this treatment the inflammation subsides and now you will be able to distinguish the indolent from the irritable patches. If the latter show signs of fixed edema, you may apply collodion with soap or ichthyol, while in cases of darker redness it will be advisable to use the microcautery. Above these applications an external dressing may be used at night, consisting of lead-water, ichthyol, or very weak caustic potash (1-10,000) solution. On the other hand, the indolent patches require more vigorous treatment, as pyroloxin paste and the soap treatment, which may easily be modified in strength and quality by using the lather of soft soap,

salve-soap, or mercurial soft soap. These patches are best covered immediately after such a treatment by a wet bandage and zinc-oxid plaster-mull or mercury plaster-mull; strongly hyperkeratotic patches require before the soap treatment a peeling with salicylic-soap plastermull. The patches on the scalp should be treated thoroughly with soft soap and then covered with a pyroloxin ointment. In cases of anemia, flushings of the face, or where the digestion is disturbed, an appropriate plan is to give ichthyol internally during the whole course of the treatment. Such a treatment, it is true, does not always work *cito*, but *tuto*, and comparatively also *jucunde*.

WHAT ARE WE TO UNDERSTAND BY ECZEMA?

By MALCOLM MORRIS, F.R.C.S., Ed.,

Surgeon, Skin Department, St. Mary's Hospital, London.

THE question here proposed for discussion is one that has particularly engaged the attention of dermatologists since the time of Willan, and although their labors have not been unfruitful, it is still unsettled. We know a good deal *about* eczema, but we are not yet agreed as to what eczema is. Is it a disease or only a name? A special process following certain laws in its evolution and manifesting itself by definite characters, or a pathological expression denoting the results of several different forms of morbid action? As the word is used at present it is both, or rather it is now one thing and now another, according to the meaning given to it by different writers. This, indeed, is one of the greatest, as it is the first, of the difficulties which meet us in dealing with the question which we are here to discuss. I do not profess to have a satisfactory solution of the problem to offer, and the time at my disposal would not allow me to present it fully worked out if I had. I can only indicate what I take to be the direction in which the solution lies, and call attention to a few salient points which may serve as landmarks to guide us on the way.

Definition.—The first thing to be done is to define the term. I feel strongly with John Hunter that “definitions are the most damnable things,” but they are a necessary evil. My conception of eczema is expressed in the following definition which was given in a work published five years ago, and which I have seen no reason to modify: “A catarrhal inflammation of the skin, originating without visible external irritation, and characterized in some stages of its evolution by serous exudation.” The terms of this definition ex-

clude all forms of artificial dermatitis, that is, inflammation of the skin produced by chemical substances or mechanical irritants. Lesions due to such causes may be exactly like those of genuine eczema, but there is this fundamental difference: they appear in response to a visible cause, and begin to disappear when that cause ceases to operate. On the other hand, true eczema arises without obvious cause; the skin may be healthy, or there may be some pre-existing abnormal condition, but there is no visible source of irritation. Eczema is idiopathic, but to say this is simply to confess our ignorance of the cause.

Nature and Cause of the Disease.—The older dermatologists for the most part followed Bateman in regarding eczema as a vesicular eruption caused by external irritation, as by the rays of the sun (eczema solare); by the irritation of various substances applied to the skin: sugar, lime, arsenic, etc. (eczema impetiginodes), and by mercury taken internally, though it is often associated with gastrointestinal inflammation without any mercurial preparation having been taken.

Bazin, whose influence was long predominant in the French school, saw in eczema the expression of various constitutional conditions, "scrofula," "arthritis," "herpetism," etc. In this way different forms of eczema were easily accounted for by their dependence on some real or hypothetical "dyscrasia." The constitutional theory in its turn gave place to Hebra's doctrine that eczema was nothing more than superficial inflammation of the skin due to some external cause—an effect of local irritation. At the present day, under the influence of Unna, many dermatologists are coming to look upon eczema as a parasitic disease. Another view, which has not a few supporters, is that the disease has its origin in some disordered action of the nervous system. There are facts in favor of each of these agencies, and I am myself inclined to the view that in many, perhaps in all cases, they are combined, the nervous factor playing a more considerable part in some than in others. This dual causation appears to me to explain the facts better than any other that has hitherto been suggested.

The Parasitic Theory.—Unna has found parasites which he regards as specific both in vesicular and in seborrheic eczema. These are cocci, which he calls "morococci," because they are often seen clustered together in little masses resembling mulberries. These micro-organisms are very frequently found in the cellular protoplasm of the elements of the vesicle. The morbid process in acute eczema consists essentially in an intense reaction of the skin, characterized

not only by the formation of vesicles between the horny and mucous layers, but in congestion and edema of the dermic structures; this effect is probably due to the action of toxins produced by the morococcus since the parasite itself grows only in the epidermis. In chronic vesicular, eczema, morococchi, and other parasites are found in the scales. In seborrheic eczema Unna has found morococchi "Flaschenbacilli," and other bacilli of indeterminate character in the crusts and scales.

Unna has cultivated the morococcus, and by inoculation of the cultures has succeeded in producing acute eczema. That the disease alike in the chronic and in the acute form is auto-inoculable, that is, transmissible from one part of the patient's skin to another, is a fact known to every practitioner. But there is also clinical evidence of the contagiousness of eczema. Jamieson¹ has pointed out that in nurses who carry children affected with eczema of the nates the disease is often inoculated in the arms. Some instances of the transmission of seborrheic eczema by contagion has also been recorded.²

Seborrheic Eczema.—With regard to this form of eczema, it may be mentioned here that Leredde, a thoroughgoing partisan of the parasitic theory,³ holds that Unna's description of it is too comprehensive, as it includes fatty seborrhea, numerous lesions of the pityriasis type, and others called by Unna "yellow spots," which, neither on bacteriological nor on histological grounds, should be classed with eczema. Stripped of these extraneous elements seborrheic eczema is still a parasitic disease, but not a pure eczema. It is, he thinks, a mixed infection due to the association of a variety of microbes, such as those of fatty seborrhea, pityriasis of the scalp, certain micro-organisms which are agents in the production of acne, together with the morococcus, which is the parasite of eczema.

Predisposing Conditions.—On the whole, we are justified in taking it as proved that parasites are capable of causing eczema, and I think we may go further and regard it as highly probable that eczema is a parasitic disease. The fact that the most effective remedies are of the parasiticide class is of itself a strong argument in favor of this view. But whether the morococcus or some other parasite, or it may be a combination of parasites, is the actual cause of the mischief is a point which we cannot regard as yet finally

¹ "Diseases of the Skin," p. 243, 4th ed., 1894.

² Perrin, *Ann. de Derm.*, 1896.

³ "L'Eczema: Maladie Parasitaire," in *L'Oeuvre medico-chirurgicale*, edited by Dr. Critzman, Paris, 1898.

settled. In any case, the parasite must have a suitable soil to grow in; it cannot strike root in a perfectly normal skin. There are certain conditions of the integument which make it particularly liable to attack. Such are dry, hard, ichthyosis-like conditions; such are also the textural changes which are the effect of old age. Such too, particularly, are skins which have been the seat of previous affections of long standing, notably the prurigo of Hebra, seborrhea, varicose veins, and artificial dermatitis produced by chemical irritants, or by other parasites, particularly the *acarus scabiei*. Among other causes of inflammatory conditions of the skin predisposing to eczema may be mentioned the irritation of certain secretions—diabetic urine, sweat, vaginal discharge, nasal mucus, etc.

The Nervous Factor.—Not infrequently, however, eczema develops on skin which is to all appearance perfectly healthy. In such cases it is clear that there is some agency at work which lessens the resistance of the integument to the attack of the parasite. Some passing disturbance of the nervous mechanism in regulating its cellular activity would be sufficient to account for a temporary impairment of nutrition that would make it ready to become the prey of invading micro-organisms. Records of cases in which the onset of eczema in its acutest form has followed worry, shock, mental strain, or other cause of nervous depression in persons with a previously clean bill of health, as far as the skin was concerned, are abundant. Financial panics and similar crises have been known to leave their impress on the skin of those affected in the form of eczema. In women eczema is often associated with menstruation, pregnancy, change of life or uterine disorder, and in adults of both sexes with gastro-intestinal disturbance. These phenomena may be interpreted as results of reflex irritation.

Whether eczema may occur as an effect of nervous disorder pure and simple is a question which I am not prepared to decide. Leredde says that the nervous origin of eczema, though admitted by numerous writers, has no solid experimental or anatomical basis. He does not, however, refer to the cases reported by Colomiatti and Leloir, (structural changes were observed in the cutaneous nerves), or to those reported by Charcot, Vulpian, and others in which eczema occurred in association with disease of the brain or spinal cord. Whatever may be the value of these facts—and I admit that they are of themselves insufficient to prove that eczema may be of purely nervous origin—the fact remains that there is ample clinical evidence to show that neurotic conditions predispose to the disease. Here, too, the effect of treatment is suggestive as to the considerable

part played by the nervous system in the pathogeny of eczema. Nerve sedatives, such as opium, and antimony in very acute cases, are among the most valuable remedies we have.

Is Eczema Hereditary?—The statement so generally made by writers on dermatology, that eczema is hereditary, is true only in the sense that consumption is hereditary. Conditions, such as dryness of the skin or instability of the nervous system, which predispose to eczema, may be inherited, and if the disease exists in one member of a family the others will be favorably placed for receiving infection.

Eczema and the General Health.—It only remains for me to say a few words as to the relation of the general health to eczema. The eruption is still regarded by many people as a kind of safety-valve. Hence, patients are often warned that they must bear their skin trouble with such fortitude as they can command lest a worse thing befall them in the form of congestion of the lungs or brain, or other formidable shape of internal disorder. I believe this fear to be absolutely without foundation. As for gout, diabetes, Bright's disease, and chronic dyspepsia, my experience is that in relation to eczema they are "aggravating circumstances," nothing more. They make a case more troublesome to treat than it otherwise would be, but they do not cause eczema nor do they modify its manifestations in any way recognizable by me.

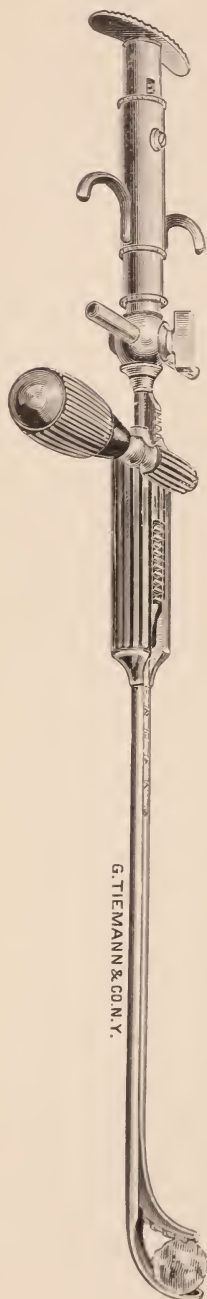
Eczema does not usually affect the general health. It may, however, cause considerable depression by the sleeplessness which it is apt to produce.

Conclusion.—In conclusion I venture to ask the question, What are we to understand by eczema? broadly as follows: It is a disease, the most clinical character of which is the infinite variety of lesion by which it displays itself, originating in the action of parasites on a skin, the resistance of which has been enfeebled by preexisting disease or structural abnormality or by disordered innervation; sometimes made more intractable by gout and other constitutional states, but having no direct relation to the general health.

Vasogen as a Vehicle in the Local Treatment of the Skin.

KARL ULLMANN (*Münchener medizinische Wochenschrift*, No. 23, June 7, 1898).—Vasogen has all the desirable characteristics of a vehicle in the treatment of skin diseases. It is non-irritating, colorless, free from odor, penetrates without difficulty the skin-follicles, ensuring rapid absorption of the drug, and is easily removed. It is thoroughly miscible with the drugs that are commonly employed in the treatment of cutaneous affections.—*Phila. Med. Journal*.

FIG. 1.



New Instrument.

A DESCRIPTION (WITH THE CUTS) OF A NEW LITHOTRITE.

BY DR. GEORGE CHISMORE,
San Francisco.

TO THE EDITOR OF THE JOURNAL OF CUTANEOUS AND GENITO-URINARY DISEASES:

DEAR DOCTOR: I desire, through the medium of your esteemed journal, to present to the profession a new method of applying power for the purpose of crushing stones in the bladder that by reason of their unusual size and hardness cannot be broken by the lithotrite now in use.

By aid of this device it is my belief that any urinary calculus that can be grasped by a lithotrite can be easily, safely, and speedily broken. I have hitherto made trial of it only in connection with my own lithotrite, for the reason that the crushing power of that instrument is supplied by a rack and pinion instead of a lock and screw as in most of the lithotrites in use; this, however, furnishes an excellent test, as my instrument is structurally less strong than—so far as I know—any of the others.

The principle of the new device is the application of the shattering effect of repeated sharp blows for the purpose of breaking the stone, and it was suggested by observing the ease with which an automatic rock drill penetrated the hardest granite.

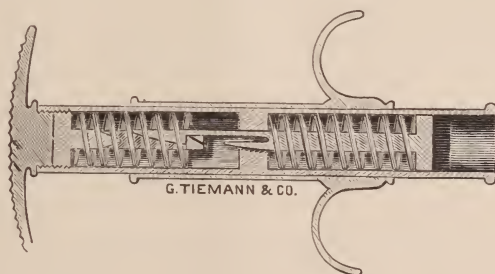
It consists of a light hammer, actuated by a spiral spring enclosed in a cylindrical tube properly fitted to the external end of the male blade of the lithotrite. The mode of using it is as follows: Having seized the stone and carried it to the center of the bladder an assistant holds it firmly in the jaws by aid of the pinion, making as much pressure as the instrument will safely stand. The hammer—or concussor—is then clapt on to the tapering head of the male blade, pressed firmly home, the hammer withdrawn by aid of two suitable projecting legs which fit the fingers. When the hammer has reached its limit it is released automatically and delivers a sharp, shattering blow, which can be repeated at will. In some experiments with a very light Chismore lithotrite at Geo. Tiemann's establishment in New York last June I readily broke pieces of grindstone an inch and a half in diameter—pieces utterly beyond the power of the instrument when only gradual force was applied. In London, about the middle of the same month, Mr. Reginald Harrison was good enough to let me try the method on a large stone which he had cut for, after trying in vain to crush it, *in situ*, with his lithotrite, a far more powerful one than mine. It re-

quired but a very few blows to cause it to fly into fragments small enough to be dealt with in the usual way.

I see no reason why slight modifications of the hammer should not make it applicable to other forms of lithotrites, provided the screw lock were made loose enough to permit the shattering effect of the blow to be transmitted to the stone, the rack and pinion, it is easily seen, offers no obstruction; on the contrary, it greatly favors it.

My own experience fully convinces me that by the aid of repeated blows or taps on the male blade a stone may be crushed that would resist the utmost capacity of the same instrument when force was applied by means of screw or lever—in other words, gradually instead of suddenly—and my object in writing this is to call the attention of other operators to this principle.

FIG. 2.



Messrs. Tiemann & Co., 107 Park Row, will gladly furnish you with a cut of the concussor that will show at a glance the principle and mode of application.

Very truly yours,
GEO. CHISMORE, M.D.

BERLIN, W., August 3, 1898.

Society Transactions.

BRITISH MEDICAL ASSOCIATION.

EDINBURGH, JULY 26-31, 1898.

SECTION IN DERMATOLOGY.

W. ALLAN JAMIESON, M.D., *President.*

PRESIDENT'S ADDRESS.

Rest in the Treatment of Diseases of the Skin.—DR. JAMIESON opened the proceedings of the Section on July 27th with an address upon this subject. Various states of unrest, to which this principle of treatment are applicable, were passed in review, overaction of the glands and appendages being exemplified in hyperidrosis, seborrhea, and ichthyosis; of the nerve-supply in hyperesthesia and pruritus. The inflammatory diseases, perhaps, furnish the best indications for the employment of rest. Acne, furunculosis, and eczema are the dermatoses of this class, upon which particu-

lar stress was laid. The speaker took occasion to refer particularly to the admirable results obtained in the treatment of erysipelas by strong ichthyol ointment (20-50 per cent.). Spread of the disease is limited and constitutional effects lessened. Even in so intractable a condition as xeroderma pigmentosum, rest and protection from the effects of sunlight by the use of brown tissue veils, and an ointment containing raw umber offer the only hope of arresting its course. [This assertion was supported later by the exhibition of a child in whom the progress of the disease had been stopped by these means for the space of two years.] Two examples of perversion of functional activity in the nerve-supply were selected at the extremes of life, papular urticaria in infants and the pruritus of age. Age has a special bearing on the methods of repression; locality in a minor degree. In children, rest for the skin is secured by attention to diet, clothing, and cleanliness. Cleansing should be done by ablutions with gruel or superfatted soap, cotton used next the skin, and application made of glycerid of starch containing naphthol, resorcin, camphor, and chloral. In senile pruritus, the cutaneous circulation should be stimulated by pilocarpin to greater activity, soft and smooth woolen underwear worn next the integument for warmth and the same glycerid used. In eczema boric-starch poultices, and salicylic vaselin (2-5 per cent.) are useful in the non-seborrheic forms. In the latter nothing has given the speaker such satisfaction as Unna's ointment-mulls, particularly the zinc-ichthyol salve muslin. Its beneficial action is explained by the protection it affords to the new cornifying epidermis. For extensive cases of eczema, rest in bed and absence of any constriction of clothing are absolutely essential. In acne, the thick integument must be thinned. Ointments containing soap, sulphur, and salicylic acid or desquimating pastes fulfil this indication and furnish at the same time the necessary antiseptics. Even in diseases due to parasites alone, pediculosis, scabies, pityriasis versicolor, something more than application of parasitocides is needed, and the principle of rest may aid materially. There are certain cases of recurrent attacks of pediculosis in old people where the skin appears to be peculiarly adapted to the growth of the insect, in which complete cure has resulted from the wearing of lumps of sulphur in a porous bag, day and night, next the skin, the idea being to take advantage of the slow oxidation of sulphur at the temperature of the body.

Exhibition of Cases.—After the close of the President's address, the Section adjourned to the Royal Infirmary to attend an exhibition of cases, a feature of the greatest interest and profit in many recent dermatological congresses. The cases were admirably selected and grouped, the exhibition comparing most favorably with that recently held in this city, and reported in the September issue.

Dr. Jamieson exhibited three cases of *scleroderma*. One case in a man of twenty-three in whom the disease persisting for eight years occurred about the mouth, was characterized by extreme density, maculation, and the usual violet areola. The diagnosis was not concurred in by many present and the condition afterward proved to be syphilitic.

The effectiveness of the measures recommended in *xeroderma pigmentosum* was illustrated in a young girl whose disease had been arrested for two years. The warty growths were removed with the aid of salicylic plaster.

Three cases were presented "for diagnosis," the exhibitor's view inclining to lichen planus. Discussion upon them resulted in the recognition in two at least of the conditions called by Unna, *parakeratosis variegata*.

CASE I.—A man of forty-seven, his disease of eight-years' standing, closely resembled Besnier's "homme rouge." The beginning lesions cer-

tainly resembled those of lichen, and were microscopically indistinguishable, but the disease had become universal, there were extreme redness and desquamation, and an apparent atrophy occurred in bands and patches. Cases II. and III., in middle-aged men, were not so pronounced, Case II. exhibiting a transition stage between the others. There was little desquamation, the patches were irregular in shape and distribution, rose-red in color and made up of tiny papules, lichenoid in character. The affection attacks chiefly the upper arms both surfaces and trunk, but the head is not exempt. Dr. Unna of Hamburg at once identified them and showed their dissimilarity to all forms of lichen. Professor Boeck of Christiania also recognized them, terming the condition, *dermatitis variegata*. Mr. Morris was inclined to view the first case in the light of a premycotic stage of *granuloma fungoides*, and Dr. Crocker agreed with him. In all three cases, there occurred islets of apparently atropic skin between and within the patches, but the atrophy was more apparent than real, the impression due to close juxtaposition to the diseased parts.

Four cases of *lupus erythematosus* were shown, one of them with marked pigmentation, three of *dermatitis herpetiformis*, illustrating the erythematous, papulovesicular, and bullous forms, one each of *cheilitis glandularis*, *angioma serpiginosum*, *folliculitis decalvans* and *monie ethrix*. A man was shown with a diagnosis of Fordyce's disease of the lips described in this Journal. It is doubtful whether the original investigator would class this with his own cases.

DR. NORMAN WALKER of Edinburgh, Secretary of the Section, to whose unremitting labor most of its success was due, exhibited:

1. A case of *adenoma sebaceum* in a youth of average mental development. The lesions proved to be lymphangiomatous and treatment by electrocautery produced good results.

2. *Ulerythema sycosiforme*, involving the frontal and parietal regions. A hardly justifiable opinion by members was expressed that the disease was a folliculitis decalvans.

3-6. *Favus*, *dermatitis herpetiformis*, *general areate alopecia*, and *lupus vulgaris*.

A case of *lepra* was on exhibition showing the typical neuroleprides of Unna. Dr. Unna took occasion to say that he had recently used caustic potash to remove leprous nodules. A useful method is by baths at 40° C. containing one-half per cent. solution of the alkali.

Lupus Erythematosus.—PROFESSOR BOECK opened the discussion with a paper on the etiology and pathology of the disease. His main endeavor was to prove a connection with tuberculosis. In the author's series of cases, fifty-five per cent. showed scrofulous glands or scars resulting from them; nineteen per cent. had interstitial keratitis of like origin. One-third showed no evidence of tuberculosis but in them the disease may be latent, and it is often present in their families. Phthisis has occurred in the acute form of Kaposi. There is, moreover, a series of transition forms from *lupus erythematosus* to lichen scrofulosorum. Other affections called "tuberculides" are often seen in this connection, among them, *granuloma innominatum* of Hallopeau, the *scrofulides*, necrotic *granulomata* described by Allen and Johnston, *eczema scrofulosorum* and particularly *erysipelas perstans* which, produced by a peculiar process, is not a complication, but probably an integral part of tuberculous disease. The last may accompany *lupus erythematosus*, shade into it or occur without it in the tuberculous. In the author's experience, *erysipelas perstans* is more often the sign of tuberculosis than of any other affection. Transition stages may be traced

from lichen scrofulosorum, through lupus erythematosus and eczema to pityriasis simplex faciei.

Free admission was made that "scrofulosis" may be only a predisposing cause. The bacillus of Koch has not been found but is probably the chief causative factor acting through its toxins. The latter cause primarily a disturbance in the vasomotor centers. The first change is dilatation of the small vessels of the cutis, followed by irritation manifest in the vessels, and the surrounding tissue. Chemotaxis, possibly a local action of the toxins, occasions cell infiltration of the vascular walls and neighboring connective tissue. The latter disintegrates and disappears. The blood-channels become impermeable from thrombosis as described by Holder, a phenomenon which the author has seen. Thrombosis may partly account for the tissue necrosis, and subsequent atrophy but it has not as yet been proven to occur previous to the tissue destruction. Erysipelas perstans exhibits this vasomotor disturbance in its extreme form, but it is set up by a different and peculiar pathogenesis because, unlike lupus, it is asymmetrical, the paresis of the vessels persists, and because these changes lie deeper in the skin. Epidermic changes are secondary to vascular. There is no necessity for a supposition in favor of a new form of tubercle bacillus.

A remarkable confirmation of the theory of a connection with tuberculosis is found in one fact. Tuberculous glands may be treated by administration of calcium sulphid, a reaction produced as from tuberculin, and an outbreak of lupus occur on the face or of erysipelas perstans on the arms, while the drug is in use. Boeck has twice produced erythematous lupus in this way in one patient. The name, lupus erythematosus is not a good one, but a change should be postponed until the etiology is clearer.

DR. P. G. UNNA discussed the question of treatment. His paper will be found in full on p. 465.

DR. J. F. PAYNE of London stated that, as regards treatment, his preference is for quinin internally, calamin, and lead lotions externally. Ethylate of soda in solution gives good results. Scarification may be used when milder measures fail.

DR. J. C. JOHNSTON of New York referred to the interest of the discussion exemplified by its adoption as the chief topic by the American Association at its recent meeting. He restated Dr. Robinson's opinion that the disease is not caused by a multitude of factors, and is not toxicin, but that it is a local infectious process, a granuloma caused by micro-organisms at the diseased points. The speaker had seen the vascular thrombosis referred to in Dr. Holder's specimens, and thought the presumption was in favor of toxicin rather than of bacterial origin of the local process. Although the case is not proven, there is much in favor of the view holding a causal relationship between tuberculosis and lupus erythematosus. As regards treatment, the opinion of many Americans is that little is to be expected, very few complete cures resulting. This pessimism is not quite hopeless, however, even among the most positive. Preference is almost universal in favor of the milder remedies.

DR. H. R. CROCKER of London said that the patients were often tuberculous. Only negative evidence in favor of a tuberculous origin can be derived from tuberculin. There is no report that it ever caused the disease. The true nature of erythematous lupus is unknown. It attacks parts where the circulation is weakest. Vasomotor changes occur first, epidermic secondary to inflammation of the corium. A toxin is possibly the causal factor. He has given salicin internally with effect, using a mild lotion externally. Quinin and ichthyol act well in the same way.

DR. JAMIESON would put aside all stimulant remedies. He has no faith

in internal medication. Many cases, though not all, can be cured and remain well.

— PROFESSOR BOECK admitted that proof is not positive as to the tuberculous origin, but time will settle the question. He has followed cases absolutely cured for many years.

DR. UNNA spoke against the presumption of this etiology. If the disease is toxic, the rings should spread continually, and there should be no recurrence after cure. The tubercle bacillus has never been found in the lesions and no change to lupus vulgaris has been observed.

Plurality of Ringworm Fungi.—DR. T. COLCOTT FOX of London read an admirable paper on this subject, of which an abstract will appear in a later issue.

MR. MALCOLM MORRIS, in discussion, gave the following directions for staining the diseased hairs: stain with gentian violet anilin water. (The time varies, five minutes for microsporon; much longer in warm solution for chain fungi.) Fix in Gram's iodine solution. Decolorize in anilin oil alone or with a few drops of strong nitric acid added, watching the process under a low power. Soak in pure anilin oil and dissolve out in xylol. Mount in xylol and Canada balsam.

MR. THOMAS of Liverpool reviewed four cases of **Extragenital Syphilis from Tattooing**, the operator using his saliva to moisten the punctures.

The Nature of Eczema.—MR. MALCOLM MORRIS of London opened this discussion with the paper which appears in full on p. 477.

DR. WALLACE BEATTY of Dublin, in the second contribution, remarked that as the cause of eczema is obscure, it can only be defined by its clinical and histological characters. Clinically, it is attended by exudation; anatomically, it is an inflammatory catarrh. The tendency to exudations is natural, and all cases not exhibiting this symptom should be excluded. Diagnosis furnishes great difficulties, but if the diseases are parasitic, when the parasite is definitely established, its discovery will make the diagnosis. He concluded by suggesting the following questions for discussion:

Is every disease eczema which appears in the form of eczema, no matter what the apparent exciting cause may be? or

Are we to exclude all eruptions, which, though clinically identical with eczema, are brought about by obvious physical or chemical irritation?

If serous exudation is characteristic of eczema, can a pustular eczema exist?

If we admit that Dr. Unna's morococci are the cause of eczema, is psoriasis in which he finds these morococci to be included among the eczemas?

How is the itching of eczema to be explained?

Is there an eczematous skin?

DR. UNNA said that he did not wish to be understood as claiming a universally parasitic origin for eczema.

DR. T. C. FOX thought the disease best studied in children. In them, at its earliest stage, it is a "descending condition," either dry or moist. It is a local condition, constitutional defects intensifying only. The seborrheic form is clinically distinguishable from the non-seborrheic, and recourse to the microscope is not necessary. There is little evidence that eczema can be produced by constitutional conditions. On the other hand, it is known that poisons and drugs do not cause it. A local origin, probably parasitic, is the surest ground.

DR. F. H. BARENDT of Liverpool expressed his belief that the disease is due to removal of the protecting epidermis by one cause or another. Too

much soap and water is often responsible. In spite of this factor of mechanical irritation, there is no doubt that the disease in certain instances is transmissible.

DR. UNNA made some remarks on **Impetigo** which he proposes to embody in a paper to be published in his *Monatshefte*. The work of the Section was brought to a close by the report by Dr. Morgan Dockrell of a case of **Inoperable Sarcoma of the Scalp** treated with Coley's fluid. The disease went on to lethal termination in spite of the injections.

It is impossible to close a report of this meeting without some tribute to the generosity and surpassing hospitality of the profession and people of Edinburgh. No stone was left unturned where the comfort and pleasure of their guests were concerned. We may have heard too much of late on both sides of hands-across-the-sea fraternity but the writer may be allowed to put it in cold type (and here he voices the sentiments of every foreigner) that never among his own people has he received a more cordial welcome nor seen more lavish entertaining than at the hands of the people of "Edina, Scotia's darling seat."

J. C. J.

SECTION IN SURGERY.

Septic Infection of the Urinary Tract.—DR. DAVID NEWMAN of Glasgow, the reader of the paper, confined his remarks to the kidney. Renal sepsis may arise from the blood- or lymph-streams, or there may be "an acute septic nephritis without suppuration," infection taking place usually from the ureter. The bladder is not easily rendered septic, but, once infected, extension to the kidney is not difficult owing to the distribution of the lymphatics, and may occur without the intermediary of the ureter. The chief point in treatment is prophylaxis.

DR. ROVSING of Copenhagen stated that two groups of bacteria affect the passages: (1) those which decompose urea, pus-cocci, other diplococci and bacilli, some non-pathogenic and (2) those which do not decompose urea, such as the bacillus-coli. In bacteruria without cystitis the colon bacillus is found; when cystitis occurs, it is due to the first class, staphylococci. Prevention is the chief safeguard.

DR. MELCHIOR of Copenhagen reported fifty cases of septic infection in which the bacterium coli was the organism most frequently found. It was introduced usually by instruments. Mr. Bruce Clark held that there must be a solution of continuity of the membrane in order to permit entrance of bacteria. In infection, cocci generally appear first, and are supplanted by the bacillus coli with its greater vitality. Several speakers expressed the view that urinary rigors are due to toxin absorption in every instance.

DR. LEOPOLD CASPER of Berlin exhibited his cystoscope for **Catheterization of the Male Ureters**, and detailed a number of cases in which it had materially aided in clearing up the diagnosis in obscure renal affections.

Electrolysis for Malignant Tumors.—DR. MELCHIOR reported the case of a girl with a large sarcoma of the neck which he found impossible to remove by ordinary surgical means. He used repeated applications of electrolysis (500 milliamperes for five minutes under anesthesia). The whole tumor sloughed away and has not returned.

Obscure Hemorrhage from the Kidney and Its Treatment by Nephrotomy.—DR. ROVSING opened his article by detailing several cases of bleeding from one kidney as shown by the cystoscope, for which there was no apparent reason. In two of them the bacillus coli was found, but the speaker thought it held no etiological relationship to the morbid

state. He surmised that the hemorrhage may have been due to venous engorgement produced by displacement of the kidney. In two cases an exploratory operation was done with good results as regards cessation of bleeding.

THE NEW YORK DERMATOLOGICAL SOCIETY.

TWO HUNDRED AND SEVENTY-FIRST REGULAR MEETING, HELD ON TUESDAY,
MAY 24, 1898.

DR. S. LUSTGARTEN, *President, in the Chair.*

A Case of Biskra Button.—Presented by DR. J. A. FORDYCE.

The patient was a girl, ten years of age, an Armenian, who had only been in this country six months. She had an indolent ulceration on the upper surface of the right wrist which had existed about one year. The ulceration appeared on the surface of a nodule of several month's duration. There was a similar lesion on the left hand, and one on the lower right leg. Dr. Fordyce said he had made a diagnosis of Biskra button.

DR. P. A. MORROW said he was inclined to agree with the diagnosis. The lesions resembled those in one other case of this affection which he had seen, excepting that in that instance they were more elevated, resembling immensely magnified lesions of *molluscum contagiosum*; they appeared as though set on the surface of the skin, with an ulcerative process in the center.

DR. C. W. ALLEN said that while he had never observed a case of Biskra button in its activity, he had often seen the scars left by such lesions, and that they resembled those in the case presented.

DR. LUSTGARTEN said he also regarded the case as one of Biskra button, of which affection he had previously seen one example. The lesions in Dr. Fordyce's case answered the clinical descriptions of this disease, and the child comes from an infected district.

A Case of Pityriasis Rosea.—Presented by DR. C. W. ALLEN.

The patient was a woman, thirty years old, with an eruption on the chest and arms of a few weeks' standing. The eruption had a peculiar appearance, due to the application of rhubarb and soda mixture. Dr. Allen presented the case as one of pityriasis rosea, and stated that the eruption had rapidly improved under the above application, as had several others in which he had employed such a wash.

DR. GEORGE T. JACKSON mentioned the fact that pityriasis rosea often improved rapidly without any treatment. He had seen a great many cases get well under the rhubarb and soda mixture internally.

DR. S. SHERWELL said he was not in favor of the remedy from an esthetic point of view, especially for an affection which will heal very readily under more preferable applications. He had found the almond emulsion, with a little bichlorid and resorcin, efficacious, pleasant, and rapid.

DR. LUSTGARTEN thought it hardly necessary in this disease to use such a strong application. He has usually obtained very good results from a mixture of resorcin (four per cent.), salicylic acid (two per cent.), and alcohol (fifty per cent.).

DR. ALLEN said that in some cases of pityriasis rosea the itching was so intense that some local application was necessary to relieve it. For this purpose he had found the rhubarb and soda mixture very efficacious, though at times somewhat severe.

A Case of Lichen Planus Associated with Papulopustular Lesions and Phlebitis.—Presented by DR. P. A. MORROW.

The patient was a man, thirty-four years old, with an eruption on the lower right thigh and below the knee; the former had existed for about two years, and in appearance was typical of lichen planus; on the lower portion of the leg the eruption had existed, the patient said, for about ten years; the skin had a glazed appearance. The eruption had never given rise to weeping.

On the anterior surface of the right thigh there was a papulopustular eruption of recent development which was altogether different from the lesions on the lower part of the limb. Associated with the papulopustular eruption was a phlebitis of the right internal saphenous vein.

DR. H. H. WHITEHOUSE said he thought the old-standing lesions on the lower leg were undoubtedly lichen planus, and had nothing to do with the pustular lesions on the thigh. He did not care to venture an opinion as to the cause of the phlebitis, on account of the meagre history.

DR. E. B. BRONSON said he was not convinced that the eruption on the lower leg was a lichen planus. If so, it was rather curious that it was confined to one leg. The lesions on the thigh, and the phlebitis he attributed to an infective folliculitis.

DR. J. C. JOHNSTON, who had seen the case at the New York Hospital, said that when the man came under observation the lichen-planus lesions were very distinct. Regarding the phlebitis, the speaker said he wished to refer to a case which he recently saw, where a man with a patch of eczema on the inner malleolus of the left foot developed a suppurating phlebitis which extended along the entire course of the saphenous vein up to the popliteal space. It yielded very readily to applications of ichthyol (fifty per cent.), being practically well in ten days.

DR. LUSTGARTEN said it was not uncommon to see a phlebitis develop in connection with itchy eruptions. The speaker said he was inclined to agree with Dr. Morrow that the primary eruption in the case under discussion was a lichen planus. It reminded him of two examples of that affection coming under his observation where the lower extremities became involved by fibrous nodules, very itchy in character, which gradually developed into a verrucose condition and eventually coalesced, forming a very extensive lesion which did not prove amenable to the usual methods of treatment.

DR. MORROW said the contour and characteristics of the lesions above the knee were quite typical of lichen planus. The speaker said he appreciated Dr. Bronson's objection to the diagnosis on account of the unilaterality of the eruption, but a number of cases of lichen planus have been reported where the lesions were confined to one side. The nodular aspect of the eruption below the knee was peculiar, but such cases have been described under the title of lichen planus verrucosus, the lesions in such cases assuming almost a warty condition. The follicular eruption and phlebitis on the upper portion of the thigh were probably accidental, and had no connection with the lichen planus.

Syphilitic Tumor of the Upper Lip Associated with Seborrheal Eczema.—Presented by DR. C. W. ALLEN.

The patient was a young man who was first shown by Dr. Allen two months ago with a peculiar warty growth on the upper lip associated with seborrheal eczema. Since then the growth had developed into a tumor which bore a close resemblance to epithelioma. Subsequently, it broke down and ulcerated. The warty growth still persists, but the ulceration had greatly improved under specific treatment. The man gave a clear syphilitic history. Dr. Allen said he regarded the lesion as a vegetating syphilide.

DR. MORROW thought the case was interesting, but not at all unusual.

DR. FORDYCE said the warty formation was probably secondary. He suggesting curettement.

DR. H. H. WHITEHOUSE said he agreed with Dr. Allen that the lesion was a vegetating syphilide. He did not think it had anything to do with the seborrheal eczema.

DR. LUSTGARTEN said the lesion appeared to be a syphilide of the fram-besioid type which are not uncommon in hairy parts, where there is a rich development of glands. The speaker expressed the opinion that these conditions were apt to get well without any radical local measures.

DR. ALLEN, in closing, said that when he had first shown this patient, there was only a dry, warty papule in the hairy part of the lip, while each separate hair had a papillomatous proliferation surrounding it. The symptoms of seborrheal eczema were very distinct, and he thought it possible that some connection between the two conditions existed, determining the peculiar features presented.

A Case for Diagnosis.—Presented by DR. ALLEN.

The patient was a young man with a generalized eruption over the body which had existed about two weeks. On the back of the neck the lesions had a pigmented appearance. The man gave a specific history. Dr. Allen said he regarded the case as one of pityriasis rosea modified and intensified by a complicating syphilitic roseola.

DR. E. B. BRONSON said he regarded the case as one of syphilis in conjunction with some form of seborrhea—perhaps one of Unna's seborrheic syphiloderma.

DR. G. T. JACKSON said he thought the case was one of syphilis in combination with a seborrheal dermatitis rather than a pityriasis rosea. The latter is a more superficial process, and lacks the inflammatory character of the eruption in the case under discussion.

DR. G. H. FOX said he thought the eruption in Dr. Allen's case was an example of an affection of which he had seen a number of instances; it appears as an acute macular eruption, confined principally to the head, neck, and trunk, and becoming covered within a week or ten days by a whitish desquamation. The congestion in Dr. Allen's case was perhaps due to some application. Hebra would probably have called the eruption an erythema or squamous eczema. Dr. Fox said he did not think the process was at all associated with true eczema, nor was the adjective seborrheal in the least degree appropriate. He would regard it as a form of pityriasis, and apply the adjective *maculata* instead of *rosea*.

DR. R. W. TAYLOR said that from the enlarged condition of the glands in this man at the present time it was fair to assume that he had a recent chancre, and as the result of this he has developed a hypertrophic roseola which is occasionally seen in men who drink heavily or whose occupation exposes them to heat or who wear very thick flannels. The pigmentary lesions on the neck, Dr. Taylor said, are very rarely observed in males in this country. He regarded the eruption as purely syphilitic, and saw no occasion for invoking the aid of a seborrheal or pityriasic process in the diagnosis.

DR. H. H. WHITEHOUSE said he thought the case was one of syphilis in combination with some other affection. The lesions about the neck were quite characteristic of the pigmentary syphilide, but the circular papules on the abdomen and thigh were more raised and infiltrated than we should expect to see in pityriasis rosea. The case might be one of syphilis and pityriasis rosea combined, however, as suggested by Dr. Allen.

DR. C. W. CUTLER regarded the case as one of syphilis, plus an acute

dermatitis, probably resulting from some irritant substance applied to the skin, or perhaps to an error of diet or to wearing heavy flannel under-clothing.

DR. FORDYCE said he thought the case was one of exaggerated pityriasis rosea, with perhaps a syphilitic element.

DR. LUSTGARTEN said he thought there was no doubt that the case was one of syphilis. The patient had informed him that twelve days ago an eruption had appeared on the body, and that a few days later he had given himself an inunction with blue ointment. The speaker thought it probable that the first eruption was a pityriasis rosea, complicated by a mercurial eruption and exaggerated by free perspiration.

DR. ALLEN said that when this patient had first come under his observation there was an eruption on the chest which he diagnosticated as pityriasis rosea, basing the diagnosis on the tawny appearance of the center of the individual lesions. The man had had a chancre about two months ago, and on his neck there is a distinct, pigmented syphilide. He has also had a sore throat and mucous patches. The speaker said he regarded the case as a combination of syphilis and pityriasis rosea. In answer to Dr. Morrow's question he stated that he had observed the pigmentary eruption on the neck very early in the course of syphilis; in one instance it came on as he recollected the case before the primary lesion had wholly disappeared.

DR. FOX said that the tawny center of the lesions, to which Dr. Allen referred, was not present in every case of pityriasis rosea, nor did the eruption always appear on certain portions of the body. The clinical aspects of this affection possessed a wider range than we were in the habit of attributing to it, and the eruption was not always superficial in character. The disease may run its course in a few weeks, but sometimes becomes chronic. Some of the lesions were circular or oval in form; others were discoid from the beginning and remained so. In many instances, instead of the macular or circinate type of eruption, we have large, diffuse patches, especially about the genitals.

A Case of Pityriasis Rosea.—Presented by DR. C. W. ALLEN.

The patient was a young man, with an eruption of pityriasis, which had almost disappeared under application of a mixture of rhubarb and soda.

DR. H. H. WHITEHOUSE said he did not think the external application of rhubarb and soda possessed any real value in the treatment of pityriasis rosea; given internally it would probably do as much good. Many of these cases get well within three weeks without any treatment whatever.

A Case of Eczema Marginatum.—Presented by DR. C. W. ALLEN.

The patient was an old man with an eczematous eruption of a few weeks' duration in and about the pubic region. The patient also had a small acute lesion on the forehead, concerning the nature of which Dr. Allen asked the opinion of the members.

DR. G. T. JACKSON inquired whether any of the scales from the eruption in the pubic region had been examined for the trichophyton?

DR. ALLEN replied that he had failed to find any trichophyton in the scales or hairs.

DR. FOX said that in his opinion, many of the cases which were formerly regarded as ringworm of the crotch were not like the ordinary ringworm at all. Such eruptions were probably of internal origin, possibly modified by a parasitic element. We see the same eruption in the axilla or on the sternum and call it seborrheal eczema. In some cases we may get this eruption on the genital region associated with a seborrheal eczema of the scalp.

DR. WHITEHOUSE regarded the case as one of tinea cruris of the genital

region. The speaker said it was often very difficult to find the fungus in these cases, according to the amount of inflammation present; in some cases a dozen or more slides had to be examined before the fungus was found. A sufficiently diligent search usually revealed the presence of mycelium.

DR. CUTLER said he agreed with Dr. Whitehouse that the lesions were probably of parasitic origin.

DR. LUSTGARTEN said that clinically the case was an eczema marginatum, probably of parasitic origin. The speaker said that the presence of a seborrheal eczema of the scalp was regarded by many as frequently having an etiological connection with eruptions elsewhere on the body. He wished to protest against such a generalization, as a seborrheal condition of the scalp was such a common affection.

Two Cases of Mixed Infection: Tuberculosis and Syphilis.—
Presented by DR. S. LUSTGARTEN.

The patients were two brothers, both being young men. There was no tubercular family history, but the patient's mother shows evidences of an old syphilis. One of the brothers, twelve years ago, developed lesions on the nose, cheeks, and upper lip, which proved so rebellious to specific treatment that Dr. Lustgarten came to the conclusion they were due to a mixed infection—tuberculosis and syphilis. Injections of the old tuberculin produced a marked reaction, both local and general, but only temporary benefit. No tubercle bacilli could be found in the lesions. Under the use of the Paquelin cautery the patient made a very satisfactory recovery, but he still has a few very small lesions on the inside of the mouth, resembling a leucoplakia, as we see it in syphilis.

The patient's brother enjoyed good health up to two and one-half years ago, when he developed an eruption involving about two-thirds of both the upper and lower lips, and extending into the mucous membrane of the mouth. Specific treatment was ineffectual. The lesions probably represent an unusual form of tuberculosis, of a chronic, miliary type. This patient had for years occupied the same room and bed as his brother, used the same towel in washing, etc.

DR. ALLEN said he was inclined to agree in the diagnosis. The leucoplakia would suggest a syphilitic rather than a tuberculous process, and the speaker said he would not be satisfied to discard that diagnosis until a very thorough and long-continued course of specific treatment had been tried.

DR. FORDYCE said the second case shown by Dr. Lustgarten bore a strong resemblance to syphilis.

DR. FOX said he was inclined to suspect the presence of syphilis in both of the cases. The fact that they did not respond to specific treatment was not positive evidence that the lesions were not due to syphilis.

DR. S. SHERWELL thought the cases were syphilitic, and suggested energetic local treatment with the acid nitrate of mercury to ulcers and tubercles, blue ointment around. The speaker, in relation to a question of leucoplakia which came up, said he usually found the acid nitrate of mercury remarkably efficacious even in old leucoplakia lesions; in such cases he applied it in full strength, carefully shielding other parts, allowing it to remain a variable time, and then neutralized it with with carbonate of soda.

DR. WHITEHOUSE said he was in entire accord with what Dr. Fox had said regarding the inefficiency of specific treatment in certain cases of syphilis. In one case of syphilis which he had observed the lesions failed to improve under any method of specific treatment, excepting continuous calomel fumigation.

DR. CUTLER said that without a history of the cases, he would be inclined to regard them both as syphilitic.

DR. LUSTGARTEN said he would present the cases again at a subsequent meeting.

THE NEW YORK ACADEMY OF MEDICINE.

SECTION ON GENITO-URINARY SURGERY, STATED MEETING, HELD ON TUESDAY EVENING, MAY 10TH, 1898, AT 8.15 O'CLOCK.

DR. R. H. GREENE, *Chairman*.

A Case of Urethral Fistula.—Presented by DR. GUITERAS.

About one year previous the speaker had been called to see the patient, who was suffering from urinary extravasation. The patient had had several attacks of urethritis and developed a stricture in the pendulous portion of the urethra. He visited several surgeons, one of whom said he would dilate his stricture immediately, which he proceeded to do; this operation was followed by rupture of the urethra and consequent extravasation. When the speaker saw him, the penis, testicle, and perineum were engorged, and the pressure of the extravasated urine was such that the urethra was completely occluded, and nothing passed through it. Several incisions were made—three in number—and he found the tissues beneath were gangrenous. After pressing out the extravasated urine and pus from the urethra he then was able to pass about a No. 16 Fr. sound, and he therefore did not do a perineal section. After washing out with a bichlorid solution he packed the incisions with iodoform gauze. At that time there were several masses of hypertrophied tissue along the penis and two sinuses, one, about one inch and a half from the meatus on the side, and the other one on the lower surface of the penis. After discussing the advisability of operation, perineal section was decided upon and done, drainage being carried on through the perineum for two weeks. One of the fistulous openings closed but later broke down again. He then had three fistulas, one in the perineum and two in the pendulous portion of the penis. His urethra becoming smaller and only admitting a No. 10 Fr. sound, another perineal section was performed. He was drained for three weeks, with the same result. This made two operations. Two months ago he was again operated upon for the purpose of exploring the sinuses and it was found that they opened into one another; one sinus he found running from the lower surface of the penis down its whole length into the perineum as far as the triangular ligament. The speaker made an incision down along this fistulous tract and opened into the perineum, at the site of the perineal fistula. Iodoform gauze was drawn through it and left for twenty-four hours. The inflammatory exudate was such that nothing could be passed through the urethra for several days. The patient was dilated and he now takes a No. 30 Fr. sound but the fistula still remains. During this whole time he has had cystitis. Through the frequent passing of sounds he has had infection of the perineum.

DISCUSSION.

DR. EUGENE FULLER thought it certainly was an interesting case; he never before saw a fistula that extended just as that one did. He thought it wise to try to find the urethral opening by injecting milk or some other colored fluid, then to pass a probe, dilate the opening and scrape the fistulous tract. Or else, lay open the whole fistulous tract, and, at the same time, make a perineal section, and so divert the flow of urine; this, he thought,

was the only way to accomplish much. The speaker had seen the case last year when the penis was twice the size of a big banana and perfectly round. The patient now has a certain amount of erectile power. The speaker thought the case was one that called for a great deal of ingenuity in operating.

DR. OTIS agreed with Dr. Fuller; the only way to do good was to use energetic measures by cutting down upon it in the way the doctor suggested, after injecting some colored fluid to find the opening of the tract.

DR. CHETWOOD suggested one of the pyrozone solutions, which he had used with good effect in a case similar to this one. The case he referred to had the two openings nearer together and the urine escaped from the external orifice. The man had been in the hands of several surgeons and had had two operations done for the purpose of dissecting out the adventitious tissue. The distance between the two ends of the fistula was several inches. Pyrozone solution, twenty-five per cent., was used, which set up a healthy action ending in complete healing of the fistulous tract.

DR. GUITERAS said he was much interested in the case and had tried almost everything to make the opening heal up. He had drained it through the perineum two or three weeks at a time; he had injected an iodoform emulsion; he had packed it and had resorted to many other methods without good result. The sinus opened through six inches of tissue and this tissue was very thick; in operating he would have to cut through the scrotum and through the thick perineal tissues, and the question naturally arises in making such an extensive incision as that would call for, would not there result a bad deformity of the penis, *i.e.*, a hooking over of the organ and the patient would then lose the use of it.

DR. F. TILDEN BROWN presented a specimen of the **Smegma Bacillus**. The morphological appearances and reaction to staining reagents of the smegma bacillus and the tubercle bacillus were somewhat analogous; but to the speaker the former appeared longer and more slender, nor do the smegma bacilli stain as brightly. In staining for tubercle bacilli, after using nitric-acid solution the slide should be flushed with alcohol, by which the smegma bacillus is wholly discolored, but the tubercle bacillus is not.

DR. GUITERAS presented an **Anatomical Rectal Tube**. There is a regular anatomical curve of the pelvis, to ascertain which the speaker injected the rectum of a cadaver, froze the subject, and then he sawed through the cadaver passing in the median line and going directly up above the pelvis; basing the construction of the tube on the results of his experiments, he now presented to the section a tube which followed the anatomical curve of the rectum. After passing in at the anus the tube will follow the course of the rectum as far as the tube will go. There is an opening three-quarters of an inch in length in the concavity and through this opening the in-and-out-flow passes.

By means of this instrument one can treat the seminal vesicles; the tube can be passed up so that the opening will be over the seminal vesicle; so, if there is any therapeutic value in these irrigations, the method shown was considered by the speaker to be one of the best for applying water, either hot or cold. The tube could also be used in prostatic cases when a spray was wanted. In females, too, in inflammations of the uterus this tube could be used, because it could be so curved up as to lie in the position needed.

DISCUSSION OF THE RECTAL IRRIGATOR.

DR. THOMAS H. MANLEY said he had made a study of the curvature of the rectum and it seemed to him that Dr. Guiteras had confused the vesical

with the rectal irrigator. He did not think we should confound the dead anatomy with the anatomy of the living. The curve of the irrigator shown may be the curve in the cadaver but it was certainly not the one found in the living subject; in the latter the curve was not so sharp. To serve the purpose of an irrigator the speaker thought the caliber was too small. The rectum, he said, was more or less occupied by particles of fecal matter which would clog an instrument of such a small caliber as the one shown.

The seminal vesicles and prostate can be reached by the finger-tip, which shows that it is about one-half the length of Dr. Guiteras' instrument. The speaker thought that in treating those cases, applications of moist heat could be done more effectively by means of the ordinary injection; fill the rectum and allow it to make contact with the parts; having done that, then allow the fluid to drain off.

DR. CHETWOOD said he did not agree with Dr. Manley in regard to injecting a fluid into the rectum and leaving it there for the purpose of applying heat or cold to the prostatic region; that it was by a continuous flow that the temperature desired was maintained.

The objection to Kemp's tube he found to be the scraping of the bowel by the lateral slots, so causing irritation. Kemp's tube was so arranged that the return flow was from large openings on the sides. He believed the opening for the return should be twice the size of the inflow and on the end of the tube. The tendency of the Kemp tube seemed to be to make the fluid run up the bowel. The speaker modified the Kemp tube by having the return flow from the end and the inflow from the sides. He had reduced the size of the openings for the inflow, which were made *so small* as to cause a minimum amount of irritation. His tube had a large opening for the return flow through the end. He warned the patients not to introduce it too far and thus prevent the free exit of the water and free the fluid at the bowel.

DR. BROWN said he believed in the efficacy of cold applied to the prostate and also in acute inflammations of the seminal vesicles. As to their mechanism he could only say what Dr. Chetwood said apropos of the difficulty encountered.

The Chairman, DR. GREEN, said that his experience with the rectal tube had been the same as nearly every one else seems to have been, that the outflow was not large enough for the inflow. The irrigator that Dr. Guiteras presented he has enlarged very much the opening of the outflow.

He asked Dr. Guiteras if the instrument overcame the difficulties mentioned.

DR. GUITERAS: Yes.

DR. SWINBURNE thought that the curve in Dr. Guiteras' tube would make it a good thing to place in the hands of some patients; he had given patients the Kemp tube and he had found the same objection to its use as mentioned by Dr. Chetwood; that the openings in the sides of the tube served to irritate the anus; then, too, it takes the patient some time to learn to insert the tube well. The tube shown, he thought, could be inserted more easily and it took less care.

DR. GUITERAS said that the tube he presented was a little larger than the Kemp tube; it was also a little longer.

In regard to the curvature he said it would be a difficult matter to get the anatomical one in the living subject; this could be done only on the cadaver. If a straight tube be used and the patient had an enlarged prostate the tip of it might pass into the gland. In cases of acute prostatitis the straight tube causes a great deal of pain; if tube is pressed too far backward the end gets into the sacrum and so interferes with the flow. For this rea-

son, the tube shown was made; with this tube you can push the tube as far you like and it will conform to the shape of the rectum; it follows the curve of the sacrum.

In regard to the rectal irrigator, that was the purpose for which it was made; any tube that throws water into the rectum he considered an irrigator. The gentlemen who advocate enemata do not have any such irrigation as they would by means of the double-current tube.

DR. E. WOOD RUGGLES of Rochester, N. Y., presented a **New Ureter Cystoscope**, Nitze's latest instrument. The speaker said he had just returned from Europe and that this was the second instrument of the kind manufactured, being thus without doubt the most recent form of cystoscope.

The instrument had several advantages over Casper's and Albarran's. With the former there is a constant dripping of the injection fluid down the shirt sleeves, which greatly upsets one's mental equilibrium. Then the arrangement for changing the curve of the catheter is much more practical in the Nitze instrument, being much like the Albarran. The instrument was easier to introduce than the Albarran, which sometimes produced hemorrhages in the male urethra.

The two chief advantages over both these instruments were the following: first, the largely increased and much clearer visual field, the bladder-wall being nearly as much magnified as with the regular Nitze cystoscope; second, the ingenious arrangement by which it is possible perfectly to disinfect the cystoscope by boiling. A cap is screwed over the ocular lens and if the instrument is placed in luke-warm water, the temperature raised to the boiling point, and cooled again before removing, no danger is done to the optical apparatus.

Nitze's first ureter cystoscope the speaker did not consider practical. The introduction of a catheter into the ureters was very difficult, especially when they were situated near the urethral opening.

This instrument was made by Louis and H. Loewenstein, Grosse Hamburger Strasse, Berlin.

DISCUSSION.

DR. FERD. C. VALENTINE said he felt under obligations to Dr. Ruggles for showing the instrument, which he believed had another value which was not named by Dr. Ruggles, namely, that it accentuated the value of the Albarran instrument. The distance between the prism and the joint of the finger which guides the urethral catheter is so great that after it has reached the triangular ligament it is likely to become impacted and so do some injury. One of the gentlemen present saw, when with the speaker in Paris, Albarran slightly tear the posterior urethra, while his cystoscope had the same defect as the one shown by Dr. Ruggles.

Dr. Valentine thought, also, that there was no possible advantage in having the cystoscope with its ureteral attachment and irrigating attachment in one piece, as it gave the instrument a caliber about one-fifth greater than that of Albarran's. Albarran's ureteral cystoscope, moreover, alone without attachments, is perhaps the best and the smallest instrument for cystoscopy we have, owing to the clearness of the visual field provided by the new optical apparatus. It takes but a second to clasp the device for ureteral catheterization, which, moreover, admits inserting and leaving for kidney-drainage a larger catheter than any other instrument.

As to irrigation of the bladder in its true sense, the speaker thought Nitze's irrigating cystoscope was, until now, the best owing to the larger lumen of its irrigating canals. The speaker said that if obliged to own but one cystoscope he would content himself with Albarran's, as it was the most practical, the most efficacious, and the easiest to handle.

The speaker thought the making of the instrument in one piece was another disadvantage, because the irrigating attachment of Albarran's was so easily made. However, for an irrigating apparatus he would repeat that there is no instrument as efficacious as the one of Nitze's devised for that purpose.

DR. F. TILDEN BROWN said that it occurred to him to say one word, that the essential point for all cystoscopes, particularly of the uretero-cystoscopes, should be that it was easy of introduction. The speaker had three instruments, but the one that he liked the best was the old modification of Brenner's; with this instrument one could handle the patient without causing him any pain or causing any bleeding.

DR. FULLER, in speaking of the field of vision, said it seemed to him that it was better to get an instrument which illuminated a small field clearly than to have one that tries to illuminate a large field; on a small field we get more focus light. He did not see the advantage of having a large field illuminated; one should find the ureteral opening and then stay there.

Another point he mentioned was in regard to the adjustment-wheel which he considered too coarse; the least movement of the wheel causes a great deal of movement; he thought that if this wheel had a finer adjustment, it would be easier to work.

DR. OTIS said that he considered these forms of catheterization cystoscopes with the prism at the distal end, necessitating the bending of the catheter, would not prove as efficient as a direct instrument, as exemplified by the instrument of Brenner. In this instrument, however, the difficulty existed that the eye-piece was in the way of the operator and necessitated a bending of the catheter at the proximal end. This can be obviated by placing a prism at the proximal end of the instrument and throwing the eye-piece out of line. Dr. Otis called attention to the fact that he had exhibited such an instrument before the Section at a previous meeting and said that he hoped soon to be able to show it in a higher state of perfection than it was at that time.

The chairman, DR. GREEN, said that it had been often mentioned before the Section that catheterizing the ureters was an easy thing to do. In the discussion of Dr. Willy Meyer's paper a few months ago, Dr. Meyer stated that he had done it seven or eight times. Dr. Sam Alexander also stated that after a great many efforts, he had succeeded in doing it twice. Both these gentlemen used Casper's instrument, one of them, seven or eight times, and the other, twice after many efforts. These cases, the doctor said, were the only ones of successful catheterization of the ureters in New York. The speaker had tried twelve times, but never once had he been able to introduce the catheter into the ureter. He had no trouble in introducing Casper's instrument into the bladder, but, on account of the small field, he could not find the mouth of the ureter. After the twelve unsuccessful attempts he met Dr. Meyer and asked him about it. The doctor replied that he never would succeed with Casper's instrument in finding the mouth of the ureter. He first used the ordinary cystoscope to locate the mouth of the ureter; then, using Casper's cystoscope, he succeeded in introducing the instrument. If the field was large enough one should be able to find the opening of the ureter with the instrument without the use of any other.

The speaker had had no experience with Albarran's instrument, which was said to be easier to use than Casper's. He thought the most practical instrument was that of Dr. Kelly and shown by Dr. Swinburne.

DR. RUGGLES wished to add to his description that of an arrangement

for its use as an ordinary or as an irrigation cystoscope. The tube for the catheter is removed and another inserted, through which the bladder can be irrigated in case its contents are obscured by pus or blood. With this tube its introduction into the urethra was much easier and a physician could get along with one instrument for all purposes.

Regarding Dr. Valentine's statement that there was little difference in the visual field of this and Albarran's instrument, and that it was merely a matter of opinion, anyway, the speaker held that it was *not* a matter of opinion—that one must get better results, all things being equal, with a six-inch than with a three-inch telescope; that the tube in the new Nitze was much larger than in the Albarran, and, furthermore, that a careful comparison would prove that the bladder-wall was much clearer and more highly magnified with the Nitze instrument.

Differential Diagnosis between Prostatorrhea and Urethrorrhea.—By DR. F. R. STURGIS.¹

DISCUSSION.

DR. F. TILDEN BROWN said he was much interested in all that Dr. Sturgis brought out in his paper, and that the subject was so vast that it was difficult to know just what to discuss, or where to begin; he would try to be brief on the matter of diagnosis only.

If we could examine the discharges from a gland as they issued from that gland, the results of such examination would be easy and satisfactory; but we must remember that the secretion from the prostate or seminal vesicles, when ordinarily examined, is taken at the meatus urinarius, or from the urine, and is no longer the uncontaminated secretion that it was when given out by the gland. When we examine the fluid which comes from the seminal vesicles at the caput gallinaginis it is not a pure but a mixed fluid. Therefore, the speaker held that a perfect and simple method of examination by the microscope of secretions gathered at the meatus or from the urine was not nearly so satisfactory as we could wish.

The points brought out by Dr. Sturgis giving the diagnostic features between prostatorrhea and urethrorrhea he thought somewhat uncertain in value. Many points given by the reader of the paper on the prostatic secretion cover interesting physiologic truths but difficultly available for clinical purposes, such as the addition of a one-per-cent. solution of ammonium phosphate to a prostatic secretion, causing Boettcher's crystals to form, which in the natural seminal discharge result in this salt derived from the seminal fluid combining with a particular basic substance from the prostate. The character of the cells secreted by the gland and particularly the ducts of the prostate the speaker agreed were all important morphological points of diagnosis in regard to the source of the discharge. In his own experience, he was led to believe that these cells were very small, of pyramidal and cylindrical shape, with prolongations which often looked like cilia, and at the extreme end of the cell was to be found a relatively large nucleus. The speaker had under the microscope a specimen to show the characteristic epithelial cells of the prostatic ducts. Another method than that mentioned by the reader of the paper was worth mentioning—the mechanical method of effecting a differential diagnosis, which might be resorted to with good effect. With a retro-injection tube wash out the anterior urethra with a methylin-blue solution, collecting the reflow with its blue-stained shreds, and then throwing into the prostatic urethra a fuchsin solution, and have the patient urinate at once, in this way securing any red-stained filaments; but this result is not perfect, for

¹ Published in the June number.

the blue-stained shreds from the anterior urethra may have originated in the posterior urethra. However, with an endoscopic tube if a lesion is found and a discharge seen associated with it *in situ* he thought it was fair to infer that the discharge was secreted at that particular location and if aspirated or picked up by a wire loop for microscopical examination and found to contain corpora amylacea, typical epithelial cells, and minute refracting bodies, we should not question its source—it came from the prostate, where the endoscopic tube discovered it. If mixed with these were found spermatozoa also, it would prove to be a mixed secretion. Now, drawing the endoscope forward, if a lesion is seen in the anterior urethra and the ducts are found to be elevated, red, and inclined to bleed, any secretion found there is fairly inferred to have originated at this spot.

In his experience the speaker was led to believe that in those rare cases of excessive and long-continued non-specific urethral discharges there is a hypersecretion from the prostatic urethra as well as a hypersecretion from the glands of the spongy urethra. In nearly all such cases there is a redundant prepuce and the glans penis is unduly moist; a balanitis probably associated with the urethritis and in a certain proportion of such cases he believed this constantly infected state of the glans penis was responsible for the urethrorrhea.

There were many other interesting points brought out by the reader of the paper he would like to speak of, but he had already taken up too much time.

DR. KLOTZ thought the subject had been thoroughly exhausted. He thought that the presence of a small discharge was of no consequence to the health of the individual and that any treatment for this discharge was more dangerous to the patient than the discharge itself.

DR. CHETWOOD thought that the nomenclature used by Dr. Sturgis was the best he had seen. Speaking from a clinical standpoint, it was hard to find any such divisions.

DR. LAPOWSKI said the presence of spermatozoa in a given discharge, in cases where a microscopical examination gives a doubtful result, can be demonstrated or disproved by Florence's chemical examination (pure iodine 1.65 + iodine of potash 2.54 + water 30) we will obtain dark-brown crystals or needles. No such reaction can be obtained from any other discharge from the genital organs of man.

To him the subject of prostatorrhoea and urethrorrhea is a very interesting one. Due attention is not given to this subject in the medical literature and Dr. Sturgis' paper was the first one, to his knowledge, where this subject is treated in a clear and concise manner.

A question the speaker said he would like to ask Dr. Sturgis was how he explains the presence of prostatorrhoea. Does not a toxic element, outside of masturbation, play an important rôle in producing prostatorrhoea?

DR. ORIS said there was little to add and that it was an exceedingly interesting paper.

In regard to the presence of spermatozoa in many of these cases he said he examined all urethral discharges microscopically and he noticed that point brought out, that spermatorrhoea was a much rarer affection than thought to be at present. He had noticed one or two cases where bicycleriding was the causative agent.

DR. SWINBURNE thanked Dr. Sturgis for the clear manner in which he had let in light on this subject, which the text-books had so mangled and made so cloudy.

DR. GREEN thought the treatment of these conditions should be directed

to one point in particular, which was congestion; and in the treatment of this congestion, one should pay attention to the circulation in general; medicines which help the general circulation, help the prostatorrhea.

In answer to the remarks of Dr. Lapowski he thought that possibly the ptomains had something to do with it. In his experience, oxaluria, or phosphaturia, or uric-acid diathesis, had very often been conditions present in these cases.

DR. STURGIS, in closing the discussion, stated that it was true that it was difficult to differentiate different portions of the tract; that certain characters pertaining to one portion of the tract were common to other portions.

Prostatorrhea and urethrorrhea the speaker considered separate and distinct diseases, although they may coexist. One cannot tell whether the secretion comes from one site or the other. As to what causes, other than mentioned, produce prostatitis, he did not know. What relation phosphaturia, oxaluria, and a large amount of uric acid in the urine had to the disease, he could not tell. He thought it was a true inflammation rather than a neurosis. He was inclined to think that it came from the irritation produced by such external causes as masturbation and increased sexual acts.

Selections.

CUTANEOUS DISEASES.

In Charge of Dr. Boleslaw Lapowski.

Erythema Induratum Bazin.—CH. AUDRY (*Monats. f. prak. Derm.*, vol. xxvi, No. 10, p. 481, 1898).

The author gives the clinical history of a typical case of this disease. Microscopical examinations of sections failed to demonstrate the presence of the tuberculosis bacillus. Inoculation of two guinea-pigs with the liquid, expressed from the nodules, and with the tissue of the nodules, did not show even the slightest vestige of tuberculosis in the animals. Histologically, the sections presented a fatty sclerosis of the connective tissue, combined with an intense edema. Inflammatory changes were entirely absent. The author rejects the opinion of writers who include the foregoing disease among the class of scrofulous affections. He is rather inclined to accept the old opinion of Hardy, who looked upon Bazin's disease as a chronic relapsing ulcerating form of erythema nodosum.

The Pathology of Molluscum Contagiosum.—T. B. LEDOWITCH (*Russ. Arch. of Path., Clin. Med., and Path.*, vol. v, p. 366, 1898).

The five cases published by the author are interesting observations regarding the question of contagiousness of molluscum contagiosum. Two of his patients were sisters, one of whom noted her first tumor after sharing the same bed with her sister for some months. Two other patients lived in the same room. According to the author immediate and prolonged contact is necessary for the transmission of the disease. He failed to inoculate the disease in a white mouse. He does not accept the parasitic theory of the affection, regarding the molluscum corpuscles as the result of a degenerative process. He obtained very good results by incising the tumors and consecutive cauterization with nitrate of silver.

A Case of Primary Infectious Hemorrhagic Purpura.—BRUNO DZIEHISZEK (*Gazeta Lekarska*, vol. xviii, p. 648, 1898).

This disease appeared in a man in good health, free from infection and intoxication, without any previous symptoms. The first symptoms of which he complained were dark hemorrhagic patches and bleeding from the mouth. From the day of his first examination until his death, which occurred seven days after admission, his temperature varied from 37.1° to 39.2° C., reaching 40.3° C. before death. During the seven days he had several severe attacks of epistaxis, accompanied by an enlargement of spleen and liver. Blood examination revealed a great diminution in number of red corpuscles, the size of which was normal. The autopsy, outside of enlargement of the spleen and liver, revealed nothing more.

A Case of Fulminant Purpura.—CLARA T. DERCUM (*The Philadelphia Med. Jour.*, vol. i, p. 1067, 1898).

A girl eighteen years old, with a tubercular family history, was suffering with occasional nose-bleed, shortness of breath, and palpitation of the heart upon the slightest exertion. Onychia of nearly all of her finger-nails and granular conjunctivitis were noted. The gums were pale, the teeth decayed, and from time to time were drawn, but no marked hemorrhage followed. For the last two and one-half years the menses did not appear, although she had menstruated regularly for about two years. Three weeks before her death intense pain and swelling in her right knee-joint appeared. Her temperature at that time was 100° F. Several days before the fatal end she was seized with a severe bleeding from the nose and blood was seen oozing from the mucous membrane of the pharynx and mouth, and from breaks in the skin over the sacrum. On the last day bleeding occurred from the nose, mouth, pharynx, ears, nipples, bladder, vagina, rectum, and even the tears that trickled down her face were tinged with blood. In the last days the temperature varied from 102° to 103° F. At the autopsy, outside of the blanched appearance of the liver, lungs, kidneys, and brain, nothing abnormal was noted, even in the right knee-joint. [There is no mention of a bacteriological examination either of the blood or of the tissues.—L.]

Infectious Multiple Gangrene of the Skin.—M. B. HARTZELL (*The Am. Jour. of the Med. Sc.*, vol. cxvi, p. 43, 1898).

A farmer's wife aged forty-six years ran an unclean meat-hook under the nail of the third finger of the right hand four years previously. Shortly after this injury a painful spreading ulcer formed in this situation, which was followed by a second just above the right internal malleolus, the disease spreading thence to the arms, legs, chin, shoulder, and upper part of the chest. The abdomen, the entire back, and the lower part of the chest, were entirely free from evidences of the disease, past or present. Since the appearance of the first ulcer the patient has never been free from the malady. The lesions began either as small, pale-red, slightly elevated papules, which within a very few hours were replaced by pin-head-sized, flaccid vesicles capped by a small black crust, or they were vesicular from the beginning, with a minute black or brown crust upon the summit. They grew rapidly, attaining the size of a large pea within twenty-four hours. Unless excised or destroyed in some manner they continued to enlarge in all directions, the borders being very firm to the touch, while the center was occupied by a constantly growing, dry gangrenous mass, which was in time loosened by supuration, evidently of secondary origin, occurring beneath

it, exposing a perfectly round, deeply excavated, sharply circumscribed ulcer, with elevated, firm borders, spreading in depth and circumference, the bottom covered by a grayish or black slough. There was unmistakable uniformity in the character of the lesions. After healing, a very white, mostly circular, smooth, slightly depressed scar took the place of the ulcer. The author injected four lesions with a five-per-cent. solution of potassium permanganate a few hours after their appearance, with the effect of materially retarding their development, but the patient left the hospital too soon to determine whether they were completely aborted. Rapid healing followed a thorough and complete excision of the lesion. Microscopically, the disease involved the entire thickness of the skin, forming in the center a homogeneous mass, and cavities upon the sides, with degenerating epithelium and cellular debris. In the lowest layers of the rete and in the papillary and subpapillary portions of the corium great numbers of bacilli were found, scattered irregularly, resembling morphologically the bacillus tuberculosis, staining best with gentian violet after the Weigert method. Besides this bacillus, the ordinary staphylococcus pyogenes aureus was present in large numbers.

Eczema and Washing of the Hands. P. G. UNNA (*Mons. f. pr. Derm.*, xxvi, p. 547, 1898).

The aggravation following the use of water in eczema of the hands is not due to the action of the water upon the eczematous surface, but to the drying up of the epidermis, with all its consequences—rhagades, if the washed eczematous hand is not protected from exposure to the air. In patients who are obliged to use their hands, Unna suggests postponing the cleansing process until evening, instead of morning, when the protective ointment can be conveniently used.

Blastomycetic Dermatitis. DR. R. HESSLER of Indianapolis (*Indiana Medical Journal*, August, 1898) reports the following additional case of blastomycetic dermatitis:

In October, 1897, a thoroughly healthy man, while being shaved, was slightly cut by a barber. The cut was just under the chin, and on a line with the right angle of the mouth. The wound healed over in the course of a few days, followed by the development of an oval red papule, as large as half a grain of wheat, at the site of the injury. This papule or small nodule was elevated, hard, and freely movable with the skin, and remained in a stationary condition for almost three months, when a change occurred. January 10, 1898, while shaving, an inflamed area, slightly elevated, and as large as a silver quarter, was noticed surrounding the papule, which now had assumed the form of a nodule as large as a pea. The irritation produced by the lathering and shaving may perhaps account for this acute inflammation, which subsided during the day and had disappeared by the next day. The nodule on the 11th was bright red, and during the day came to a "head."

This infective process was looked upon with suspicion from the beginning. The barber's attention was called to the "little lump" as soon as it appeared, and he thought it might be due to an "ingrowing hair." When, later, the suppurative process appeared, micro-organisms were naturally suspected to be present. The surface of the abscess was now cleansed and opened aseptically, culture-tubes were inoculated, and some of the pus was spread on cover glasses. On examination of these latter no "pus-formers" were found. A few hours later several additional covers were coated, this

time by gently pressing the abscess and consequently getting a little blood with the pus, and these covers, after passing through the flame, were set aside. Several days later, when a growth appeared in the culture-tubes, consisting of comparatively large cells, and which subsequently were determined to belong to the yeast family, these covers were examined more critically for organisms, which the tubes showed to be present. Different staining methods were tried, and it was then found that the yeast-cells were in the interior, chiefly, of the pus-corpuscles, presenting the general appearance of a nucleus of a polynuclear leucocyte. The best results were obtained by using Ehrlich's neutrophile stain, with just sufficient heating to fix the material. With this stain the yeast-cells came out distinctly as brownish, slightly oval bodies. The outline or border was more sharply defined than that of the nuclei of the pus-corpuscles, the color of the latter being of a pale bluish-green. The organisms were in the budding stage; small buds, daughter cells, were seen occasionally.

The tubes inoculated were four agar-agar tubes, the only kind on hand at the time; two were of the stab and two of the slant kind. In a few days small, bright, white colonies appeared. All tubes and all colonies presented the same appearance, indicating a pure culture. Subsequent observations proved the cultures to be pure, and many generations have now been grown and on all kinds of media.

In the further development, in the course of weeks, a pale, dirty white mass appeared on the top of the stab tubes; this growth appears most readily on glycerin agar, and this mass was found to consist of a dense network of fibers, with cells of various sizes—in short, of a fungous growth.

The organism can be readily cultivated in hanging drops. Reproduction is quite rapid; daughter cells attain full size in the course of an hour, or, in other words, the whole number doubles every hour. In fluid media development usually stops at the budding stage; in solid media and in media that are desiccating, the characteristic fungous threads appear after a time—after days or weeks.

The organism does not grow in glucose solution, or only slightly, but grows abundantly on the addition of a little extract of beef, and without the formation of carbonic acid.

As obtained from cultures and seen in stained preparations, the organisms, in the budding stage, appear as slightly oval bodies, with a clear outer envelope, and with differentiated contents, somewhat resembling coccidia at first sight.

The organism is much smaller than that described by Dr. Gilchrist, but, following in his footsteps, Dr. Hessler has called it a blastomyces, which it seems to be and most likely is. Dr. William H. Welch has seen slides of cultures, and holds to this opinion.

After opening the abscess it was freely painted with a preparation of carbolic acid, and in a few days all signs of an active inflammation had disappeared. The amount of scar tissue resulting from this inflammation was out of all proportion, in comparison with a similar inflammation caused by the ordinary pus-formers, and under similar treatment. After over four months the cicatrix was still well marked, with an area of glazed skin over the site of the nodule.

At a still later period, however, evidence of the formation of a new papule, within three-fourths of an inch of the first one, appeared. Its slow evolution and general appearance indicate that the organism is still at work in or under the skin. Chronicity seems to be a characteristic of inflammations due to pathogenic yeasts.—*Medicine*, September, 1898.

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POROKERATOSIS, WITH REPORT OF CASE.¹

By GROVER WILLIAM WENDE, M.D.,
Clinical Professor of Dermatology, University of Buffalo.

IN the year 1887, Domenico Maiocchi, an Italian, put on record a case presenting a singular appearance of the skin, which he thought to be a form of ichthyosis hystrix. After a lapse of six years, the same case was brought to the notice of Vittorio Mibelli, also an Italian, who pronounced the lesion peculiar and exceptional, described the pathological process as distinctive and characterized the affection as porokeratosis. Simultaneously with the observations made by Mibelli, there appeared in the *Giornale Italiano delle malattie veneree e della Pelle* an article by Respighi, describing a number of cases, which, in a clinical and pathological sense, were the same as those already reported by Mibelli. One year later Respighi classified his particular cases under the name of hyperkeratosis eccentrica. In 1896, M. B. Hutchins of Atlanta, Georgia, published the clinical details of a case of porokeratosis occurring outside of Italy, he having had the patient under observation since 1892, one year prior to Mibelli's announcement. In 1897, T. C. Gilchrist of Baltimore, Md., made reports of eleven cases which proved that the affection had followed a course of transmission from grandmother to grandchildren. In June of the same year, Dr. Max Joseph gave a graphic and exhaustive account of two cases encountered by him in Germany.

The pathological alterations incident to this disease are appar-

¹ From the Pathological Laboratory of the University of Buffalo.

ently non-inflammatory in character and are confined to the epithelial layer of the skin, which, at the outset, appears as a specialized horny patch that soon becomes depressed in the center, afterward developing into a seam (Hutchins) or dyke (Mibelli). The periphery of the lesion reveals a gradual development, is unique in character, and cannot justly be likened to any other cutaneous manifestation. A pronounced line, which may be either uninterrupted or broken, marks its course. This, at times, is studded with miliary projections forming in the outline of the skin involved.

The lesion presents a configuration that may be either regular, wavy, polycircular, or grotesque, and that varies in size from a single centimeter to dimensions sufficient to cover the entire forearm. It shows a predilection for exposed surfaces, especially the hands and face—sometimes the feet, rarely the body. When the hands and feet are affected, the manifestation is usually in close proximity to the joints, the nails becoming secondarily involved. Occasionally the buccal mucous membrane is found to be the seat of the disease. The skin within the inclosure produced by the peculiar seam may be apparently normal, or atrophic and slightly depressed, with loss of hair. Complete anidrosis has also been observed in these areas, undoubtedly due to the destruction of the sudoriparous apparatus. Small oval concretions, isolated or grouped, resembling the miliary projections described in the seam, are sometimes discovered on the surface of the affected parts. The disease is found to attack both sexes, but, thus far, judging from the cases reported, the male sex predominates. Nor is there any discrimination with regard to age, the disease occurring alike in childhood, adolescence, and maturity. Spontaneous retrogression, or actual disappearance, has never occurred except in one of the cases published by Mibelli. After existing for a number of years, the disease gradually progresses and continues through life. Subjective symptoms may or may not be present.

Proof of hereditary transmissibility is often evident, as shown by the cases published by Gilchrist, where eleven members of one family were declared to be affected in the course of four generations. The results obtained from a microscopical investigation by Mibelli demonstrate the fact that the process, from its commencement, is practically a hyperkeratinization. The alteration is first seen to take place in the epithelial lining of the tubules of the coil glands, as a cell proliferation or acanthosis. Subsequently, there is manifest a plugging due to marked hyperkeratosis, followed by atrophy, which ex-

tends to and includes the various layers of the skin as well as the sebaceous glands and hair-follicles.

A case occurring in my own practice which may be regarded as typical, although not as extensive in its distribution as some already recorded, nevertheless confirms the details of the original description of the disease. My observations were supplemented by a few experiments. The history of the case follows:

On the 17th of September, 1897, at the dispensary of the University of Buffalo, I first came in contact with the patient, a woman, who, at the time, was forty-five years of age, strong and healthy, with the exception of the present cutaneous trouble. Except an attack of smallpox, which occurred at the age of six, the previous history was negative. The patient is of American birth, intelligent, married, and pursues an active and industrious life. Her father was ninety-seven years old at the time of his death, and her mother is now eighty years of age. She has a brother and a sister, both of whom are in good health. As far as known, no member of the family, near or remote, was ever affected with a like malady. Her complexion is that of a brunette; the skin is thick and pigmented; the hair is hazel, and the mucous membrane of the mouth, as far as visible, is rose red.

It was soon discovered that the expression of the eruption with which the patient was affected was striking and exceptional. She was, therefore, promptly sent to a photographer who secured the accompanying picture. It was impossible from the appearance of the lesion and the symptoms present, to make a positive diagnosis. Consequently, there was prescribed a 20-per-cent. ointment of mercury, to be spread on cloth and held *in situ* by means of adhesive plaster. It was also thought that benefit might be received from a mixed treatment. K. I. and Hg. were, therefore, given internally. That these remedies were deserving of an extended trial was judged from the knowledge possessed at the time regarding the etiology and pathology of the disease. The patient did not return to the dispensary for three months. The remedies, however, were employed unremittingly, but with no positive effect, except that the local itching was somewhat subdued.

After reading Hutchins' article, which appeared on page 373 in the JOURNAL OF CUTANEOUS AND GENITO-URINARY DISEASES, October, 1896, the syphilitic theory was dropped and the mercury application abandoned, as it was found by a comparison of the case in hand with his, that the patient also exhibited unequivocal marks of porokeratosis. As to the peculiar way in which the trouble began, the patient

stated that, five years ago, she became aware of the existence of a small rough, scaly plaque, situated upon the dorsal side of the interdigital fold, between the thumb and the index-finger of the left hand, which speedily assumed the appearance of a new growth, was about the size of a pea, and resembled a seed wart. For a long time its dimensions were unchanged, causing considerable annoyance, as, upon the slightest provocation, the lesion would become excoriated. This hypertrophy, with its occasional denudations and peculiar sensitiveness, prevailed for more than one year, when it suddenly assumed quite a different character, being replaced by a scaly ring about the size of a coriander seed, with a marked border, and a steady and gradual inclination to develop and spread peripherally. The irritation and consequent torment were materially lessened upon the subsidence of the excrescence, but increased as the circle became larger.

For the past two years the condition has been accompanied by a sudden, colorless, evanescent tumefaction of the skin surrounding the lesion. Different localities of the forearm, even at points remote from the lesion, were, at times, affected. Its development has always been sudden and rapid, invariably culminating in less than two hours and vanishing with equal rapidity. This condition would frequently manifest itself after the patient retired for the night and would disappear before morning. The swelling always affected the same hand and arm, but not always the same region. Another peculiarity complained of was the intensity of the itching whenever the hand came in contact with water, especially if it was warm; in fact any change of temperature aggravated the affection. On December 15, 1897, two weeks after all local and internal treatment had been discontinued, a most careful examination of the case was made, which disclosed no evidence of organic or functional disturbance of the heart, lungs, or any of the abdominal organs. An analysis showed the urine to be normal. The peripheral and central nervous system, as well as the organs of special sense, exhibited no unhealthy condition.

Following the examination, a few days later, the circumscribed cutaneous edema, already referred to, was observed. The intermittent lesion, measuring two inches in diameter, occupied the anterior surface of the forearm; the color of the skin was natural; and, by the next day, the swelling had wholly disappeared, with the exception of two small scaly pea-sized patches, thought to indicate the inceptive stage of the disease. The forearm presented a normal aspect. The scaly spots were not examined microscopically. The principal

lesion, presenting the same feature as those described by Mibelli and Respighi, was found on the hand of the same arm, at the base of the thumb and index-finger, and encroaching upon the interdigital fold. The patch represented an area measuring sixty millimeters at its longest diameter and thirty-five at its shortest. It was quadrilateral in shape and clearly defined by the unusual continuous zig-zag border which constitutes the pathological characteristic of the disease. This abnormal boundary between the patch and the healthy skin was especially interesting from the fact that it was raised into a

FIG. 1.



pronounced ridge, horny and unyielding, having a marked central rift which varied in depth. The ridge measured two millimeters in both width and height. At the points where the prominence was most flattened the rift was entirely obliterated. The lesion, in color, resembled the normal skin, although somewhat heightened by the deposit of extraneous matter. Apart from the ridge, the skin was not apparently influenced by the morbid process, but that confined within the area and contiguous to the inner edge of the boundary line varied from a slight pink to a glossy white—the latter being more toward the center. The entire inclosure was slightly depressed,

with a loss of hair-follicles. The natural furrows of the epidermis were somewhat less apparent, as shown in the photograph.

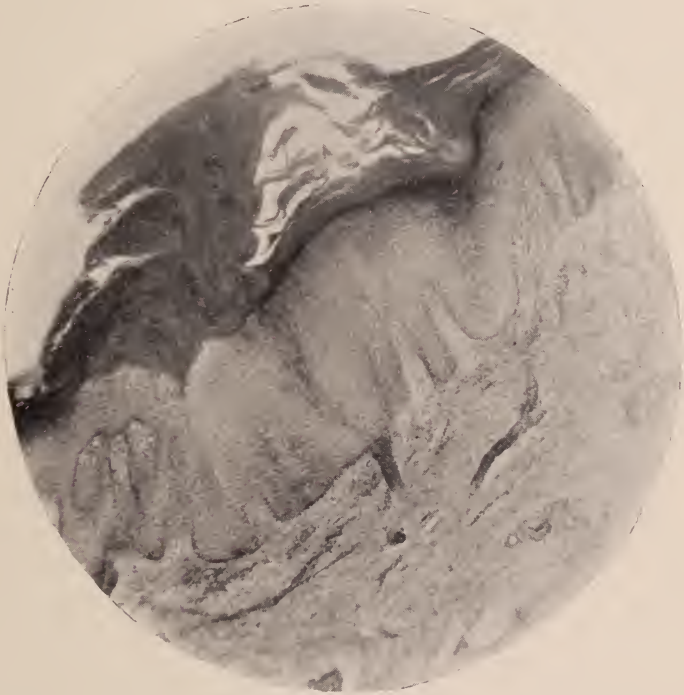
A deep spot of cicatricial tissue, resembling parchment, was especially noticeable. A single hair, abnormally bent, was found within the inclosure. At the first examination, prior to the mercurial application, numerous horny nodules, the size of a rape-seed, were observed in close proximity to the inner portion of the ridge, on the wrist side, which could easily be removed by the finger-nail, leaving minute indentations. Numerous conical elevations, analogous to the small concretions embedded in the plaque, existed in the rift, some of which were scattered, others combined in groups. These may readily be detected by viewing the photograph (Fig. 1) with a magnifying glass.

The affected area also displayed an invariable anhydrosis and asteatosis of the surface. The internal administration of pilocarpine practically illustrated a total suppression of perspiration in the inclosure, whereas an increased flow was everywhere apparent, even in close proximity to the ridge. The application of mercurial plaster for the first three months simply retarded the growth of the lesion, while the more recent employment of the curette and the use of salicylic acid temporarily removed the rim. However, it was readily re-formed and, after a lapse of four weeks increased to the dimensions of six millimeters.

In the five fragments of skin, which were removed for microscopical examinations, from the border of the parts affected, the histopathological appearances characteristic of the disease were clearly manifest. After the usual hardening in alcohol and embedding in celloidin, vertical sections were cut and stained. One description will suffice for the different methods which were employed in the various microscopical examinations. In the sections examined, wherever the ridge existed, the epidermal layer was greatly augmented. Within the inclosure, in portions of the stratum corneum, there was a general hyperkeratosis. There was also hypertrophy of the rete Malpighi. A marked hypertrophy was manifest in portions of the layers previously affected. In other portions, it was discovered that the disease principally affected the stratum corneum. This developed into a ridge extending above the normal level of the epidermis, which was easily removed by means of a curette. A vertical section of this unusual elevation, after having been subjected to a picrocarmine stain, was found to consist of an aggregation of epithelial cells, arranged, with more or less regularity, into either perpendicular or oblique columns. The nuclei of some of these cells

were deeply colored, others were wholly unaffected. Near the surface where the cells were most irregular, they were partially destroyed and the remnants were combined into groups; while those in certain localities, and contiguous to the stratum mucosum, were rounded and often presented distinct nuclei. The rete nearest the rift was usually much thickened and its interpapillary prolongations were greatly exaggerated. The cylindrical cells of the basal layer were well preserved; the same was true of those comprising the

FIG. 2.



prickle layer, when not in close proximity to the rift, in which event they assumed an appearance of roundness and were usually widely separated. The stratum lucidum was only rarely perceptible; it was often ill-defined, more frequently invisible. The stratum granulosum, without exception, revealed a marked hypertrophy, apparently consisting of five to eight layers of granular changed cells, which was especially augmented in the vicinity of the sweat-ducts, and which took the picrocarmine and hematoxylin stain exceedingly well. This pronounced alteration in the granular layer has led me to believe that possibly it may be the seat of the origin of the disease.

The superficial blood-vessels in the papular and reticular layers of the corium, under the long papillæ, where the process was most active, were dilated and contained an increased number of leucocytes. This change was especially apparent in the vicinity of the sweat-glands. The morbid alterations in the glands themselves and in their ducts were conspicuous. The sweat-pores within the inclosure were plugged with numerous horny cells. Their lining was seldom smooth and their orifices were but slightly involved. However, in the ridge, the orifices of the ducts presented a superimposed mass of horny cells, extending as far down as the rete and producing, in many instances, a terminal plug. In the ridge itself, where the process was most active, the sweat-apparatus exhibited no evidence of atrophy. On the other hand, within the circle formed by the ridge, the lumen of the ducts was often diminished in caliber—sometimes destroyed.

The glandular tissue comprising the sebaceous glands was noticeably diminished in those parts where the changes were active.

At times, the accumulation of epithelium would be found in the mouth of the sebaceous follicles, while but little of the sebaceous glands remained recognizable. In the ridges the hair and its follicles could not be discovered at all.

The effort to determine the real source of this exceptional affection is attended by many difficulties, for the reason that, as yet, our knowledge of it is so limited that we can only approximate definite classification, being governed by its anatomical aspects as pointed out by Mibelli. We can never know what is primary and what is secondary, or what occasions the accumulation of horny cells in the duct of the coil-glands, and their plugging, until we possess a rational appreciation of the etiology of the disease.

Respighi conjectures that the trouble may be of a parasitic nature, and endeavors to discover its origin by staining for micro-organisms and by experiments in transplantation. Bacteriological examinations were also made by him, and various culture-media were used, but no evidence of the existence of micro-organisms resulted. Prior to the reading of Respighi's article, the writer made some thirty inoculations upon four different individuals—ten on December 17, 1897, ten on January 1st, and ten more on January 15, 1898. The method of procedure consisted simply in a slight scarification of the parts to be inoculated, sufficient, however, to produce an oozing of lymph, when a small amount of the pulverized horny substance from the rift of the lesion heretofore described was gently rubbed into the locality scarified, allowed to dry, and protected from friction by means of an

ordinary round corn-plaster. The scarifications, with the exception of a few upon the arms, were mostly made upon exposed parts. But a single one of the thirty inoculations mentioned seemingly proved a success—this occurred upon the unaffected hand of the patient having the disease, after ten unsuccessful attempts. All the others revealed the ordinary crusting, which readily healed and came to nothing. The first indication of successful inoculation was the appearance of a small, rough, non-inflammatory spot, which, within ten days, gave evidence of a slight elevation in the center, and extended peripherally until it attained the size of a rape-seed. It then began to flatten, without any visible signs of either discoloration or inflammation. Two weeks later it was accompanied by intense itching, and the patient, fearing a difficulty like the one from which she had so long suffered, became uneasy and demanded its immediate removal. The operation was delayed as long as possible; however, after the expiration of ten weeks, to obviate further anxiety on the part of the sufferer, it was performed.

The extirpated tissues were then subjected to a microscopical examination which, in the main, revealed features not unlike those found in sections taken from the typical lesion. The similarity consisted in the pathological changes associated with the orifices of the coil-glands and the presence of a horny cell proliferation within their ducts. Near the center of the section the orifice of a gland was clearly perceptible. This was sufficiently dilated to form a funnel-shaped opening, plugged with a mass of horny cells that projected to the extent of one millimeter beyond the normal level of the epidermis. The tissues surrounding the projection were loosely arranged and greatly increased in thickness. Hypertrophy of the mucosum was also evident. Apart from this there was nothing suspicious.

In my opinion, had the manifestation been allowed to remain, it would undoubtedly have produced the disease with all the clinical features fully developed. A large number of sections from the newly formed lesion were stained for micro-organisms, after the methods of Gram, Gram-Weigert, and with Ziehl's carbolfuchsin, but without result. These same methods were used in connection with the original lesion, but no micro-organisms were demonstrated.

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HYDROA VACCINIFORME ?¹

By JAMES C. WHITE,

Professor of Dermatology in Harvard University.

ASK your attention to a report of some cases questionably of this infrequent affection, which present some unusual features, and I will first make brief mention of two instances I find recorded in my unpublished "memorabilia," which may recall to you the typical phases of the disease.

1. A boy, seven years old, came to my clinic at the Massachusetts General Hospital late in the month of April. The changes in his skin had begun three weeks previously, after a few hot days. His face presented upon the sides large umbilicated vesicles, some of them a third of an inch in diameter. The ears were much swollen and generally occupied by similar confluent lesions; on the backs of

¹ Read at meeting of American Dermatological Association, June 1, 1898.

the hands and wrists they were smaller and less abundant. The contents of some of the vesicles were hemorrhagic and some of the lesions were covered by crusts. In addition to these appearances of recent date, there were pits or scars of various sizes upon the face and ears, a sequel of a similar attack during the previous summer. Cultures from the contents of the vesicles were sterile.

2. A boy, ten years old, was brought to me April 24th, who had a sparse eruption of large vesicles, some of which were already crusted upon the face and limbs. A few were noticed upon the trunk also. The lesions resembled those of chicken-pox, and were of one-week's duration. The continued development of the efflorescence for some time under observation proved the case to be not a varicella. The mother reported that the child had had one or two similar attacks each summer of three previous years, and these attacks had left many shallow white depressions, still visible, situated principally upon the extremities.

Other instances of the affection, which I have observed in children, might be mentioned, in which the lesions were confined to the ears and backs of the hands, characterized by their umbilicated and necrotic condition, their recurrency, and cicatricial sequelæ. These are the typical features of the disease first described by Bazin under the title *hydroa vacciniforme*. How widely the cases I now present differ from, or exceed this type, the following description will show:

In March, 1897, two children were brought to my clinic, a girl aged ten years, and a boy eighteen months old. They were of healthy American parentage.

Case I.—The mother related the history of the girl as follows: "She was an apparently healthy child until she was eight months old, when in the month of December a spot, the size of a pea, appeared, which became a blister and broke. A small crust formed, which dropped off in about three weeks, leaving a scar. By the time the first one had healed others had made their appearance on the legs and arms, some of them being dry, some very sore, and some of them running with pus. As fast as one crop began to heal another would break out, until the following April they all dried up, and she was not troubled any more until the next November, when they broke out again. They have been coming about the same ever since, breaking out in November and healing up in April. Her general health has always been very good."

At the time this patient was first seen by me the statement was made that the seats of the eruption had been the face, ears, hands to the elbows, and the feet up to the knees. The central face and ears

presented at that time many pitted scars. The hands and forearms looked as if scarred by a burn, and the lower legs showed similar appearances. The disease had been in a state of marked activity upon these parts during the previous winter, but then showed only a few fresh, poorly developed, flat, large vesicles. During the past winter, 1897-98, it has awakened as usual after its summer quiescence, there having been three severe outbreaks of vesicular and bullous efflorescence. At the present time, March 1st, there are only a few fresh lesions.

Case II., the boy. The mother states that "in April following his birth he had chicken-pox, and immediately afterward an eruption appeared in the form of small pimples, which became water-blisters the next day and broke, leaving either running sores or crusts, and later dark marks. They affected the feet, buttocks, hands and arms, and face. In November and December they dried up a little for a while, but in January they broke out again worse than ever. At this time he was seen by Dr. Tirrell of South Weymouth, who kindly sends me the following report:

"I first saw the patient when he was four months old. He had what I called pemphigus. The lesions were located upon the buttocks only. I was called to see him again January, 1897. When I reached there his mother told me that he had had a convulsion. He had a temperature of 103° F., pulse 125-130, and had every symptom of the beginning of some infective disease. The next day the mother called my attention to the right arm, which was red and swollen, a general blush throughout the arm from finger-tips to the shoulder. The day after, the upper part of the arm from elbow to shoulder was covered with erythematous spots, size of small peas, which quickly developed into pustules, which ruptured, and became crusted in a day or two. On the hand the process extended beneath the skin, and required cutting to allow the pus to escape." This attack seems to have been a form of localized dermatitis, quite distinct from the process elsewhere presented.

On his first visit to me, March, 1897, the face and extremities below the elbows and knees were thickly occupied by large vesicles and small bullæ, which were partly in an excoriated or crusted condition. Some of them presented hemorrhagic contents and black bases. Mingled with these were a few urticaria-like lesions, but of considerable duration. Deep-pitted scars were thickly interspersed among the fresh lesions on all the affected parts. The alæ of the nose had undergone partial destruction, being deeply notched, and

the ears were very thin and nicked. The child's general condition was good.

A year later I saw him again. The mother reported that there had been fresh attacks nearly every month in the interval, and that they were more severe in cold weather. At this visit in March the disease was not in a state of activity and his condition was recorded as follows:

Face.—Above the eyebrows there are scars slightly fibrous, some of them red, some of a yellowish color. Between the eyes small white pits looking like smallpox scars. On the tip of the nose the cicatrices are more recent and larger, and one of them is still surmounted by a crust. The alæ of the nose are partly destroyed. On the cheeks and about the mouth there are several large scars of a reddish color, the largest of which is nearly an inch in diameter. Along the borders of the ears there is some loss of substance, and a few scabs are present.

Arms and Legs.—The little and third fingers of the right hand are ankylosed as in the main *en griffe*. The other fingers of both hands are covered with depressed cicatrices, some of which are surmounted by thick brown crusts. The arms show the effects of the process in a degree diminishing as we approach the trunk. The same is true of the legs. Near the wrists and ankles very little normal skin remains. The limbs are thickly covered with scars of varying ages. The older ones are white, the more recent ones are covered with brownish or red crusts. All the scars are depressed. The trunk is quite free from any evidences of the disease.

In a recent paper,¹ Dr. McCall Anderson calls attention to the condition of the urine in the case of two brothers affected with this disease under his observation. During the outbreak of the efflorescence and for some time afterward, the urine was of a Burgundy-wine color, and was found to contain a peculiar pigment allied to urohematoporphyrin, to be recognized by the spectroscope, for which he proposes the name mei-ode-oxyhematoporphyrin. Desirous of learning if any such condition of the urine existed in my cases, a specimen from the younger patient was kindly examined by Professor Wood of Harvard University, who did not find any of this pigment in it. The mother stated that she had never noticed a high-colored urine from either child at any time. It must be remembered, however, that the disease was in a quiescent state at the time of the analysis, and possibly such pigment may not be formed in early childhood under any conditions.

¹ *British Medical Journal of Dermatology*, January, 1898.

Much attention has also been given of late to the condition of the cell elements of the blood in dermatoses of vesicular and bullous type especially. In dermatitis multiformis, in pemphigus, and after vaccination the eosinophiles have been found greatly increased both in the blood and the fluid contents of the vesicles and bullæ. In a recent case of the former under my observation, ninety-three per cent. of the cells of the fluid in the vesicles were of this variety. An examination of blood of the younger patient was accordingly made by Dr. Richard Cabot, whose special knowledge in this branch of research is well known to you. The reports follow:

BLOOD REPORT.

Blood obtained from McCormick of O. P. D., February 16, 1898.

Showed dermatitis herpetiformis.

Red Corpuscles }
White Corpuscles } Ratio 1:

Hemoglobin 00 (Fleischel)

Color Analysis (Erich) of 200 leucocytes showed:—

Polymorphonuclear neutrophiles.....	54.5 per cent.
Lymphocytes.....	30. "
Large mononuclear and transitional cells.....	7. "
Eosinophiles.....	8.5 "

Adventitious Forms } Large myelocytes (over 13 *m*) }
 } Small " (under 13 *m*) } None.

While counting these, no normoblasts and
no megaloblasts were seen.

Remarks:—

The fluid from the vesicles was crowded with eosinophiles—ninety-three per cent. of all the cells being of this variety.

The blood shows also a marked increase.

R. C. CABOT.

BLOOD REPORT.

Blood obtained from Dr. J. C. White of Boston, February 8, 1898.

Showed Red Corpuscles normal in size and shape and apparently in number,

White Corpuscles not increased.

Hemoglobin normal.

Color Analysis (Erich) of 500 leucocytes showed:—

		Normal.
Polymorphonuclear neutrophiles.....	40.8 per cent.	65 per cent.
Lymphocytes.....	42.4 "	28 "
Large mononuclear and transitional cells....	8.6 "	6. "
Eosinophiles.....	8.2 "	1 to 3 "

Adventitious Forms } Large myelocytes (over 13 *m*) }
 } Small " (under 13 *m*) } None.

While counting these, no normoblasts and
no megaloblasts were seen.

Remarks:—

The eosinophiles are markedly increased. For an adult the percentage of the lymphocytes is considerably increased at the expense of the polymorphonuclear cells. For children this is normal.

There is no evidence of anemia nor of leucocytosis.

R. C. CABOT.

BLOOD REPORT.

Blood obtained from case of *Hydroa Estivale* of February 16, 1898.

Showed

Red Corpuscles }
White Corpuscles } Ratio 1:

Hemoglobin diminished.

Color Analysis (Erllich) of 100 leucocytes showed:—

Polymorphonuclear neutrophiles.....	34 per cent.
Lymphocytes.....	43 "
Large mononuclear and transitional cells.....	8 "
Eosinophiles.....	15 "

Adventitious Forms } Large myelocytes (over 13 *m*)
 } Small " (under 13 *m*)

While counting these, normoblasts and
 megaloblasts were seen.

Remarks:—

The eosinophiles even more numerous than before. Anemia now appearing.

R. C. CABOT.

So far as I know a similar investigation of the blood in this disease has not been reported for comparison, but our knowledge of its condition in this direction in affections of the skin is at present too limited to permit any deduction of value as to its significance in the way of differential diagnosis.

In connection with these cases it is interesting to note that another child in the family, a boy, had, when six months old, an eruption, described by the mother as similar, upon the face, arms, and legs, but he died three months later of "typhoid pneumonia." There are five other children in the family, and they, as well as the parents, are in good health. Nothing resembling the affection is known to have occurred in preceding generations of the family.

Possibly if I could present these little patients for inspection here to-day, some of you might doubt the correctness of the diagnosis of their disease I have suggested. The cases differ indeed widely from the ordinary type of the affection and from those first cited by myself, but chiefly in the way of exaggeration. Let me quote Bazin's original description of the disease given in his "*Affections Cutanées de Nature Arthritique et dartreuse*," Paris, 1860:

HYDROA ARTHRITIQUE. DEUXIEME VARIÉTÉ.

L'hydroa vacciniforme n'est pas connu des auteurs, l'année dernière j'eus l'occasion d'observer cette singulière éruption. J'envoyai mon malade consulter plusieurs médecins des hôpitaux; les uns crurent qu'il s'agissait d'une affection syphilitique, d'autres ne se prononcèrent pas sur la nature de cette éruption. L'affection durait depuis un an et avait été combattue sans succès par les moyens les plus variés. . . .

L'hydroa vacciniforme apparait à la suite d'une promenade au grand air ou après l'exposition à un soleil ardent. Il existe un peu de malaise, de l'anorexie; l'éruption se montre d'abord sur les surfaces d'couvertes, puis sur les autre parties du corps. La muqueuse buccale est aussi envahi par l'affection. On voit en premier lieu des taches rouges, sur les quelles naissent bientôt des vésicules transparentes qui ressemblent à celles qu'on observe dans l'herpès. Des le second jour ces vésicules, qui sont, arrondies, présentent une ombilication très évidente; en peu de temps il se forme une croûte successivement au centre et à la circonférence de la vésicule. Lorsque cette croûte se détache, elle laisse une cicatrice déprimée; chez le malade dont nous parlions plus haut les cicatrices nombreuses qui couvraient la surface du corps auraient pu faire croire à l'existence antérieure d'une variole. L'affection se prolonge par des poussées successives pendant des mois; dans le cas qui nous rapportons, l'hydroa vacciniforme a duré six mois.

From the time when this description of the disease as an individual affection was published until Mr. Hutchinson again called attention to it in his account of a case of "summer eruption" in 1888 it escaped recognition, but within the past ten years many dermatologists have written upon it, and in one of the latest of these articles by Professor Mibelli of Parma, a long bibliography of these publications is given. From a study of the cases therein referred to it appears that the commonly accepted definition of the disease, as follows, is too narrow: It begins between the first and third years of life, almost exclusively in boys; the attacks occur in spring and summer after exposure to the sun; the lesions consist of small and large vesicles, which coalesce to form large bullæ, and are seated upon the face, ears, wrists, and hands; they are often depressed in the center, like those of vaccinia, and present a dark sunken base from hemorrhage or necrosis; crusts succeed, followed by scars resembling those of smallpox. The most notable deviations from this type which have been recorded are its appearance for the first time as late as the tenth year, its occurrence in girls, and in winter exclusively, or throughout the year.

The most striking and exceptional features in my own cases are the cessation of all activity in the process during the warm months for ten consecutive years in the girl, the all-the-year-round outbreaks in the boy, the failure to be especially influenced by exposure to sun or weather, the extensive distribution of the cutaneous changes in

both cases (affecting large portions of the legs and arms beyond its usual seats), the large size and long duration of the individual lesions, the magnitude of the subsequent cicatrices, and the great disfigurement observed from time to time, and judged by the immediate appearance of individual lesions the case of the boy might suggest exceptional forms of:

1. The herpes iris type of generalized erythema multiforme,
2. Dermatitis multiformis (herpetiformis of Duhring).
3. Pemphigus.
4. Epidermolysis bullosa hereditaria.
5. Bullous syphiloderma

Indeed, I think we may recognize a close affiliation between the first two affections and hydroa estivale or vacciniforme, and must acknowledge that although the ordinary types of all three are clearly defined, there are many cases where the dividing lines cannot be sharply drawn. The case of the boy, in fact, has been pronounced pemphigus, syphilis, and dermatitis herpetiformis by physicians who have seen it at various times. The noteworthy differential points in diagnosis may be briefly stated. Erythema multiforme does not run a continuous twelve-months' course, present lesions of a large size uniformly, or leave scars, at least of this character. Dermatitis multiformis would scarcely confine itself absolutely to the localities here affected in so long a course as that of the girl, nor has it ever been known to produce such scars and disfigurement. Dr. Duhring kindly sends me the following valuable opinion upon this point: "I believe scarring may occur in dermatitis herpetiformis, but it is rare, especially in a marked form, and I regard such cases as peculiar, that is where scars exist a year or two after the eruption has disappeared."

In a recent discussion on dermatitis herpetiformis in the London Dermatological Society several members spoke of having observed the occurrence of "temporary (?) superficial scars."

Pemphigus, too, would be more generalized, would present plumper bullæ at first, and could not persist over such period of time, as have these cases, without grave results upon the system, nor does it cause such scars.

In epidermolysis the lesions appear generally as the result of direct mechanical influences, as pressure on friction, and upon parts especially accessible to such influences. They are always of short duration, and leave no permanent marks of their seat. In this connection it may be added that the children have never had excessive sweating, that their nails are not diseased, that their teeth are perfectly developed, that the bullæ are never the result of direct pres-

sure and never occur within the mouth, and that no milia or "epidermic pearls" have ever formed in the vicinity of the lesions.

Syphilis of a bullous type in children might present such appearances. The lesions upon the palms and soles, the large scars, the contraction of the fingers, and the destruction or notching of the alæ of the nose might well raise the question of its possible existence here. But bullous syphilis is one of the most malignant types of the disease. It could not exist of so wide a distribution for two and a half years persistently without the gravest results, certainly not ten years, as in the girl. Here there is no cachexia in either case. Nor does it present so sharply defined an intermittent type. Such syphilitic lesions lead to deep ulcerations. Here none have occurred. Moreover, the most characteristic signs of syphilis in children, the tegumentary changes about anus and lips, those within the mouth and nostrils are wanting. Nor is there any bone disease. It is interesting to remember in this connection that in the case reported by Dr. McCall Anderson, above referred to, there was the same nicking of the nose and contraction of the fingers, as his photographic illustration well shows. (See article.)

So far as the subjective symptoms are of diagnostic importance, it may be added that in the case of the girl there has never been any itching "except when the attacks are dying away," whereas in the boy the skin always itches greatly during the active stages of the disease.

The final question now arises. Where shall we place these extraordinary cases? They vary from every normal type of dermatosis known to us in many features. Shall we regard them as exceptional forms of dermatitis multiformis as modified in course, and by the graver tissue changes resulting in general scar formation, incidental to childhood? I have seen this affection in other children pursue its ordinary course, and leave no permanent mark of its presence, and Unna's "hydroa puerorum" is certainly a different affection. I, too, have seen slight scarring follow the pustular forms of dermatitis multiformis in adults, but none approaching these in gravity. Or shall we enlarge our definition of hydroa vacciniforme so materially as to admit the protean and exaggerated character, and the indefinitely prolonged duration of the lesions, with their atypical relations to seat and season, which characterize these cases?

To me the latter conclusions seems the less forced, and I must, therefore, adopt it, unless we are prepared to establish a new position for them in our system of classification.

SOME OBSERVATIONS UPON THE USE OF UROTROPIN
IN PYURIA.¹

By GEORGE EMERSON BREWER, M.D.

Attending Surgeon, City Hospital; Assistant Demonstrator of Anatomy, College
of Physicians and Surgeons, New York City.

IN the *Deutsche Medicinische Wochenschrift* of November 4, 1897, Dr. Leopold Casper calls attention to the antiseptic value of urotropin in diseases of the urinary passages. He states that "whereas he had always regarded internal disinfection of these organs with remedies hitherto known, to be impossible; he was inclined to regard urotropin as an exception, for experiment and clinical observation had taught him that in this agent we possessed a remedy of great value in the various suppurative inflammations of the pelvis of the kidney and bladder, as well as the septic intoxications which so frequently follow the absorption of the toxins generated by these conditions." Attention has also been called by this author to the value of this agent, in phosphoturia; and by Nicolaier and Lobisch in the conditions associated with the formation of uric acid concretions. Citron, in the "*Monatsberichte über die Gesamtleistungen auf dem Gebiete der Krankheiten der Harn- und Sexual-Apparate*," Bd. III., No. 2, 1898, in speaking of the chemistry of the drug, states that its antiseptic action in the urinary passages is due to its decomposition in the economy, giving rise to formaldehyd which is excreted in the urine.

Without entering further into a consideration of the literature of the subject, or the theory of its action, the writer desires to call attention to three cases, which seem to confirm the views expressed by Casper; and also to elicit the views of those present, whose experience may have been more extensive.

CASE I.—E. B., aged 58; married. The application of this patient was rejected by one of our large life-insurance companies on account of the presence of albumen and pus in the urine. He had never suffered from venereal disease, but on several occasions, during the past ten or twelve years, had had severe attacks of vesical irritation characterized by frequent micturition, tenesmus, and the passage of cloudy, foul-smelling urine. These attacks would last from a few days to several weeks and were occasionally accompanied by retention, a more or less constant pain in the perineum, fever,

¹ Read before the American Association of Genito-Urinary Surgeons, at West Point, June, 1898.

and marked physical prostration. The patient's general health during the intervals would be excellent, and a careful examination of his other organs failed to reveal the evidence of disease or weakness other than a well-marked hemorrhoidal condition and small ulcer in the lower third of the rectal mucous membrane.

Local Examination.—Circumference of penis, $3\frac{1}{2}$ inches; urethra free to 32 F. from meatus to bladder; prostate slightly nodular and tender; seminal vesicles and testicles apparently normal. Urine, cloudy, neutral; specific gravity, 1022; slight trace of albumen. The first glass contained numerous shreds, free pus, and a few red corpuscles and bacteria. The second glass contained free pus, blood, and bacteria. The shreds in the first glass were made up of pus and urethral epithelia.

Diagnosis.—Chronic follicular prostatitis with occasional acute exacerbations of posterior urethritis and possibly pyelitis.

Treatment Advised.—Daily irrigation of urethra and bladder with a solution of potassium permanganate and mercuric chlorid; also, massage of prostate and deep injections of nitrate of silver. This treatment was faithfully carried out for several days with but slight, if any, improvement either in the symptoms or the appearance of the urine.

At this time he was seen in consultation by Dr. George K. Swinburne, of this city, who thought that the condition was probably due to a colon-bacillus infection, occurring through the abraded rectal mucous membrane, and advised an operation for the removal of the hemorrhoids and ulcer. This was done, the patient remaining in bed about one week. Later the irrigations were resumed, and although the patient felt greatly relieved from the perineal pain and discomfort, the pus still remained in the urine.

Urotropin was then given in 15-grain doses, three times a day, and all other treatment suspended. A marked improvement was at once noted, and within ten days both specimens of urine became clear, and the albumen disappeared. He was later examined by the medical officer of the life-insurance company, who also reported the urine as free from albumen and pus.

CASE II.—A prominent physician of this city called upon the writer early in March, complaining of frequent micturition, tenesmus, and cloudy urine. He had had an urethritis many years ago, followed by stricture. For several years he had experienced no symptoms of trouble, but had been in the habit, occasionally, of passing a sound to ascertain the condition of the urethral canal. This had been done three or four days previous to his visit, and had

resulted in pain in the deep urethra and the escape of a small amount of blood. The following day he experienced a sense of discomfort in the perineum, which was followed by a frequent desire to urinate, slight fever, and general malaise.

Examination.—Anterior uréthra free from the evidences of any acute inflammatory processes. Prostate, slightly tender; a small nodule upon the right side. Right seminal vesicle, slightly enlarged. Urine, cloudy, first specimen contained free pus and shreds, the latter made up of pus-cells, but no gonococci; the second specimen contained only free pus.

Treatment.—Deep urethral injections of nitrate of silver, and irrigation of urethra and bladder with potassium permanganate. Marked improvement followed the first etching with nitrate of silver, but the pus soon returned. Improvement again followed the second deep urethral injection only to be followed by a relapse. After two weeks of treatment, during which no substantial relief was obtained, the right seminal vesicle was relieved by gentle massage. The material removed consisted of pus, blood, a few live and many dead spermatozoa. This was repeated a few days later, and again at the end of the week, during which period the urethra and bladder were daily irrigated. At the end of this time the vesiculitis seemed almost completely relieved, but the pus still rendered both specimens of urine cloudy, and the prostate remained nodular and tender.

Local treatment was then suspended and the patient given urotropin in 15-grain doses. Urine cleared within 48 hours, but again became cloudy when the urotropin was suspended. A resumption of the drug once more cleared the urine and the patient made a complete recovery.

CASE III.—This was a pyelitis following gonorrhea, which presented alarmingly acute symptoms. The patient, aged 30, had had several previous gonorrheas. Some two years ago he had been operated upon by the writer for stricture, and discharged well. In January last he again acquired a gonorrhea, which was treated by the balsams and some astringent injection for twelve or fourteen weeks with but little improvement. He consulted the writer in April, at which time he presented the evidences of a chronic anterior and posterior urethritis. Irrigations were advised, but irregularly carried out by the patient, who was a salesman and constantly on the road. A few weeks later he returned complaining of frequent and painful urination, with cloudy urine, chills, fever and great weakness. The urine showed one per cent. of albumen, was loaded with pus and contained a small amount of blood. Prostate,

hot, tender and nodular, but not markedly enlarged. Marked tenderness in the right lumbar region with a certain amount of muscular rigidity; kidney not palpable. The record fails to note the temperature and pulse at this time, but both were elevated.

He was given a deep urethral injection of nitrate of silver, sent to bed, placed upon a milk diet, instructed to drink large quantities of Poland water, and to take urotropin in 7-grain doses three times a day. The following day the condition was unimproved. Temperature 103, and pulse 120, chills and great prostration. The urotropin was suspended owing to the irritable condition of the stomach. A second deep urethral injection gave marked relief to the frequency and vesical tenesmus. During the following week the bowels moved freely, the amount of urine was greatly increased, the fever gradually subsided and the patient sat up.

On May 12th the urine still contained one-quarter per cent. of albumen and a large amount of pus, both free and in clumps and shreds; temperature normal; patient extremely weak and anemic. Urotropin was given in 7-grain doses after each meal.

May 19th: Patient urinates every two hours during the day, and four times each night; has had another chill followed by fever; the urine still contains one-quarter per cent. of albumen and a large amount of pus. Urotropin increased to 15 grains four times a day.

May 23d: Patient is much better, urinates every four hours during day, and once at night. The urine has a specific gravity of 1005; no albumen; both glasses clear, only a few shreds in the first.

May 30th: Urine clear; no albumen; a few shreds made up of mucous pus and epithelial cells. Patient feeling well. Urotropin reduced to one dose daily.

June 3d: Urine perfectly clear; no albumen; only one small floating shred in the first glass.

The writer is aware that the three cases reported *prove* absolutely nothing regarding the value of this drug in pyuria, for all who are accustomed to treat cases of this kind have observed instances similar to the first two, in which marked and rapid improvement in the symptoms has apparently followed the simple suspension of long-continued treatment by the ordinary methods; and, not infrequently, even the severest cases of acute gonorrheal pyelitis seem to yield rapidly to simple rest in bed and free diuresis. In the writer's opinion, however, in all of the cases reported, the favorable result was directly due to the effects of the drug. If this view can be confirmed by further observation we will have in urotropin a valuable addition to our list of remedies.

A CASE OF MYOMA OF THE SKIN.

By MAXIMILIAN HERZOG, M.D.,
Professor of Pathology in the Chicago Polyclinic.

MYOMATA of the skin are quite rare. There are hardly more than a dozen cases to be found reported in the entire medical literature. Virchow¹ has reported the case of a woman thirty-two years old who had been suffering for a number years from several nodular masses about the breast; these masses Virchow describes as muscular tumors. Unna² states that those

FIG. 3.



Leitz obj. No. 3; eye-piece No. 3. Section showing a hair-bulb with a sebaceous gland (to the left) and its arrector muscle (to the right), from the cells of which the neoplasm arises.

parts of the skin which normally contain a larger amount of unstriated muscle-fibers, such as the scrotum, the labia majora, and the area around the mammilla are most liable to give rise to the occurrence of myomata. Cases exhibiting the tumor have been reported by Ver-

neuil and Besnier,³ Arnozan and Veillard,⁴ Brigidi and Marcacci,⁵ Jadassohn,⁶ Hess,⁷ and Lukasiewicz.⁸

These myomata may arise from one of three sources, either from the arrectores pilorum, from the vessel-walls, or from those deep strata of muscle-fibers which are found in the scrotum, the labia majora, or the region of the breast. Jadassohn and Lukasiewicz, for instance, report cases in which they traced the origin of the tumor to the arrector muscles. Hess, in his case, saw the neoplasm

FIG. 4.



Magnification as above. Section from near outer margin of tumor, showing network of interlacing bundles of fibers and broad bands of elastic fibers.

starting from the vessel-wall, but could not find that the arrectores took any part. This author also mentions the presence of elastic fibers and basophilic cells in his tumor.

I am able to add a case to the scanty list. Unfortunately, I could not obtain many clinical data with reference to it, and the best history obtainable is the following: There had been removed from the cheek of a man, forty-five to fifty years old, a nodule about one centimeter or less in diameter; it had been growing slowly, had been quite painful, and the skin had not been movable over it. It seemed,

on the contrary, quite firmly adherent to the tumor. There was no ulceration. The excised nodule was referred to me with the request to verify the probable clinical diagnosis of carcinoma (epithelioma) of the skin.

Pathological Anatomy.—The small tumor mainly consists of involuntary, unstriped muscle-cells or fibers. They present in their shape, nuclei, and general arrangement those features usually found in myomata, namely the formation of groups or bundles of fibers which run in various directions and interlace freely. It can be clearly

FIG. 5.



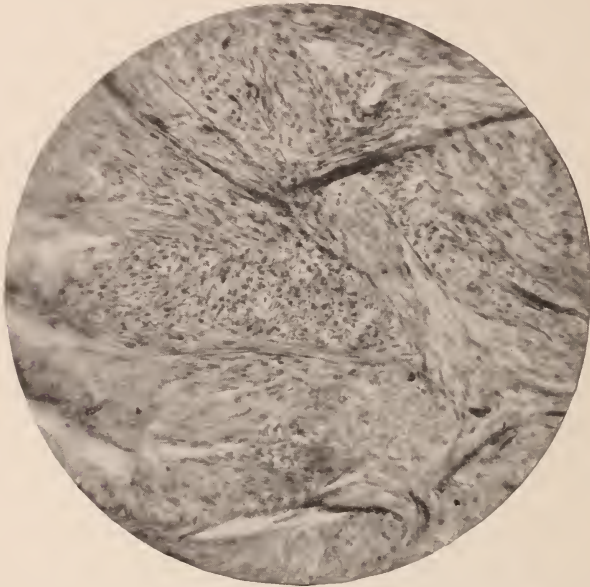
Leitz pantachr. 7 mm.; eye-piece No. 3. Section showing an area of dense small round-cell infiltration.

demonstrated in a number of sections that the cells of the neoplasm take their origin from the arrectores pilorum. The unstriped muscle-cells forming these bundles have proliferated outwardly as well as inwardly toward the epidermis as well as toward the derma.

Where the epidermis overlies the neoplasm it has, in consequence of the growth of the tumor, become thinned. The epithelial strata form an even layer, there being no rete pegs. The papillæ of the derma have likewise disappeared and it may be said that the derma has become completely obliterated by the tumor tissue. The bulk of the latter, as already stated, consists of very typical unstriped

muscle cells, but besides these, there are found in some places areas of dense round-cell infiltration. The round cells are of the type of small mononuclear lymphocytes. There are also found in these conglomerations of small mononuclear lymphocytes some basophilic leucocytes ("Mastzellen"). These cells, which could be very nicely demonstrated with the Ehrlich-Westphal carmine-dahlia stain are also found here and there between the tumor cells proper. The elements forming the tumor also comprise elastic fibers. It is usually said that all myomata contain quite an amount of elastic tissue;

FIG. 6.



Magnification as above. Section stained according to Mallory-Ribbert to demonstrate elastic fibers.

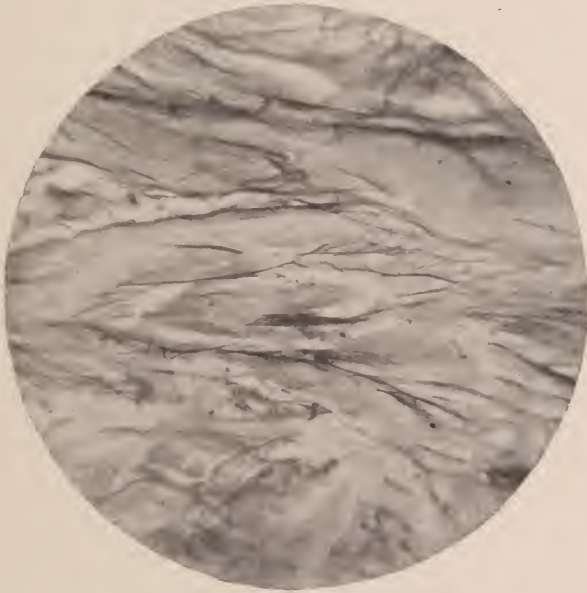
however, this statement is not quite correct. It seems that the amount of elastic tissue found in myomata varies a good deal, and I have recently, for instance, examined a large myoma of the ovary where I failed to demonstrate any elastic fibers at all. I mention this here because it appears that myomata vary a good deal with reference to the presence of elastic fibers according to their place of origin.

The myoma of the skin here described was found to be especially rich in elastic fibers, particularly those places where parts of the derma were still preserved. It is evident that the elastic fibers found in the substance of the tumor were derived from the derma, which is so rich in these elements.

The methods used to exhibit the elastic fibers in the tumor substance, where they form to a certain extent sheaths around the muscle-bundles, into which they also penetrate, were the Mallory-Ribbert, and the Weigert's stain. The latter method has been published quite recently, and it may, therefore, be desirable to describe it here.

One (1) gram of fuchsin and two (2) grams of resorcin are dissolved in 200 c.c. of water by boiling in an evaporating dish. When boiling add 25 c.c. of liquor ferri sequichlorid; stir and keep

FIG. 7.



Magnification as above. Section stained according to Weigert's method to demonstrate elastic fibers.

on boiling for two or three minutes; cool and filter. Dry residue in evaporating dish and add filter which has likewise been dried. Add 200 c.c. 94 per cent. alcohol and boil while stirring. When cold add enough alcohol to bring the whole again to 200 c.c.; add 4 c.c. HCl. The stain is now ready to be used as follows:

1. Stain sections for twenty minutes to one hour.
2. Wash in 95 per cent. alcohol, lift stained section on slide, and dry with filter-paper.
3. Clarify with xylol (carbol-xylol or oil of cloves must not be used).

4. Mount in Canada balsam dissolved in xylol.

The method as stated furnished excellent results. The elastic fibers occurring in the myoma under discussion stand out very sharply, the color being a deep blue-black. Even the finest fibers can be distinctly seen so that one gets a picture reminding one of a bare branch with twigs from which the leaves have dropped off.

These neoplasms are by no means entirely harmless from a clinical point of view. If occurring on the face or on other exposed parts of the body they are objectionable from purely cosmetic reasons, but besides this, they are, as a rule, quite painful, as was the little tumor in our case. They are, as a rule, multiple, and they have a tendency to recur after removal, sometimes for years. They may not recur at exactly the same spot from which they have been removed, but they do appear in new crops at other points, and in some of the cases reported patients have for years been suffering from the attendant pain. It is probable that this pain is caused by pressure upon the peripheral sensory nerves so richly developed in the skin.

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174 E. Chicago avenue.

Society Transactions.

THE NEW YORK DERMATOLOGICAL SOCIETY.

TWO HUNDRED AND SIXTY-NINTH REGULAR MEETING.

DR. S. LUSTGARTEN, *President, in the Chair.*

A Case of Dermatitis Papillaris Capillitii.—Presented by DR. S. SHERWELL.

The patient was a married woman, forty years old, with an eruption on the scalp and back of the neck. The eruption was accompanied by a loss of hair in patches, more particularly in the occipital region. The bald patches were the seat of small, papillary lesions. The woman stated she had had an attack similar to this one twenty years ago, from which she recovered. The present eruption has existed for a number of years.

DR. P. A. MORROW said he was inclined to doubt the correctness of the diagnosis. According to the woman's statement this eruption had existed for a number of years, and in that case one would expect a more exuberant growth in true dermatitis papillaris capillitii.

DR. HENRY H. WHITEHOUSE said he did not think the case was one of dermatitis papillaris capillitii. According to the patient's history, the eruption had recurred from time to time. He was inclined to look upon it as a seborrheal eczema.

DR. SHERWELL, in closing, said he had very recently seen the case for the first time. While he agreed that the eruption was not typical of dermatitis papillaris capillitii, yet by daylight it presented certain features which were very suggestive of that affection. The permanent and serious character of the eruption had led him to throw out seborrheal eczema.

A Case of Epithelioma of the Lip.—Presented by DR. C. W. ALLEN.

The patient was an old man with an epithelioma of the upper lip, which Dr. Allen said he proposed to treat by the non-surgical method, *i.e.*, by caustics, rather than by a wide incision.

DR. KLOTZ said he agreed in the diagnosis, and thought the case was more favorable for surgical interference than for anything else.

DR. DANIEL LEWIS was inclined to believe that the lesion could not be properly termed a true epithelioma at the present time: it belonged rather to the pre-cancerous stage, and in order to remove it a very superficial incision would suffice. There was no induration and a radical operation, he thought, was unnecessary.

DR. A. R. ROBINSON regarded the lesion as an epithelioma which should either be cut out or burnt out. The latter could be done with caustic potash or arsenious acid, with very little, if any, subsequent deformity.

A Case of Lupus Erythematosus Disseminatus.—Presented by DR. HENRY H. WHITEHOUSE.

The patient, an unmarried woman, fifty-two years of age, had always enjoyed the best of health. There was no history of tuberculosis in any branch of the family. She states that all her people are rugged and long-lived, both her parents having passed the age of ninety.

The disease began three years ago on the scalp, which has been the seat of active lesions ever since. Soon after the eruption appeared she contracted a severe cold and applied capsicum plasters to the upper part of the chest, front and back, in the median line. When these were re-

moved, the skin beneath was greatly irritated and there quickly developed upon it lesions similar to those upon the scalp, which remained several months and disappeared. A year from the time the plasters were applied, however, the disease developed again in these localities and has remained to the present time, a period of two years. Simultaneous with the recurrence upon the chest and back, a few small patches appeared on the external ear and behind it, on the sides of the neck near the angle of the jaw, and one patch on the bridge of the nose.

The backs of the hands and the forearms began to be affected about the same time, and two or three lesions formed on the inner sides of the left knee; these latter disappeared in a month or two, their sites now being marked by atrophic scars. The lesions on the forearms were very numerous at one time, as evidenced by the many small atrophic scars scattered over the surface; one active lesion, present now on the right forearm, has existed two years. During the past ten months new patches have rapidly developed upon the face, which fact the patient attributes to frequent bathing with strong salt water.

The eruption is everywhere typical of lupus erythematosus, and is markedly symmetrical in distribution. There are numerous patches on the face, none larger than a five-cent piece, and many of them much smaller. There are no diffuse areas. There are active lesions on the scalp, and small areas of alopecia resulting from former lesions. Those on the chest and back and behind the ears show beginning atrophy in the center. On the upper extremity the disease is confined to the backs of the hands and the extensors of the forearms. The patient complains of almost intolerable itching.

DR. FORDYCE said that while he agreed in the diagnosis, he thought the case was peculiar in having so many and such small lesions. In a case of symmetrical atrophy of the skin under his observation the patient developed lesions similar to these.

DR. BRONSON also regarded the case as one of lupus erythematosus disseminatus. It differed, however, from the description of Kaposi in that there were no constitutional disturbances, such as usually accompany each successive outbreak. The speaker said that in the only case of probable lupus erythematosus disseminatus he had ever observed the principal lesions were on the face; they would occasionally undergo exacerbations, accompanied by constitutional disturbances—fever, headache, etc.—and at such times similar lesions made their appearance on the trunk; the latter, however, would never develop beyond the erythematous stage and would disappear entirely.

DR. WHITEHOUSE said he thought cases similar to the one he had shown rather militated against the belief that lupus erythematosus is due to the absorption of ptomaines, inasmuch as there was an entire lack of constitutional symptoms in this instance. Cases have been reported, however, where the constitutional symptoms were severe. At the January meeting of the London Dermatological Society Galloway presented a case very similar to the one shown by the speaker where the eruption began as an erythematous swelling about the face; the patient was a person in feeble health, but there was no pulmonary tuberculosis or other foci from which ptomaines could come. In that case the lesions were similar to those of erythema multiforme, but the resulting cicatrices threw out that diagnosis.

DR. LUSTGARTEN said that during a former discussion on this subject he had reported Koch's case of lupus erythematosus disseminatus of the acute type of Kaposi which ended fatally, and the autopsy failed to reveal any focus of tuberculosis.

A Case of Eczema Rubrum.—Presented by DR. A. R. ROBINSON.

The patient was a young man with an extensive eruption completely involving both lower extremities. The eruption had commenced about two months ago on the feet and gradually extended to the hips. The patient stated that he had had two similar attacks previous to this one, the first one occurring sixteen years ago. Dr. Robinson said he regarded the case one of parasitic eczema on account of the manner of spreading of the eruption—increase in area affected by gradual extension at the periphery.

DR. LUSTGARTEN said that eruptions of this character usually yield readily to appropriate antiparasitic remedies, such as applications of nitrate of silver or tar.

DR. FOX said the eruption would heal under a gelatin dressing.

DR. ROBINSON, in closing, said that while the eruption was probably of parasitic origin, that fact could not be positively demonstrated. The parasitic origin of many skin diseases that spread in this manner, among them lupus erythematosus, is still under discussion and probably will be for a long time to come. In eczema it is particularly difficult to identify the special parasite, as there are so many varieties always present on the skin.

A Case for Diagnosis.—Presented by DR. S. SHERWELL.

The patient was a colored man, thirty-four years old, a horse-trainer by occupation, who was referred to Dr. Sherwell by Dr. J. W. Barlow of Brooklyn, for a papular eruption which had first made its appearance about four years ago. The eruption was confined to the lower extremities and bore some resemblance to Hebra's prurigo. The only history obtainable from the patient was that some years ago he had a sore on the prepuce. When he first came under Dr. Barlow's observation in January, 1898, he was put on Donovan's solution, under the administration of which the eruption temporarily disappeared. The yellow iodid of mercury, potassium iodid, and the phosphate of soda were subsequently tried, with negative results.

DR. J. C. JOHNSTON thought the case could be properly classified among the prurigos that have been described by the French—the diathetic prurigos of Besnier. He did not consider it similar to Hebra's prurigo.

DR. S. LUSTGARTEN thought the case was one of the prurigo group described by the French, of which Hebra's type is only one division. Hebra would probably have called it lichen urticatus chronicus.

DR. SHERWELL said he had regarded it as a prurigo, as it certainly bore some resemblance to Hebra's disease. He did not consider it an eczema, although it was accompanied by intense itching. The glandular swellings were far more pronounced than one would expect to find in eczema.

A Case of Tuberculosis Verrucosa Cutis.—Presented by DR. C. W. CUTLER.

The patient was a man, sixty-two years old, a shoemaker by occupation. The backs and palms of both his hands were the seat of numerous (about 100) small, warty tumors, which were dusky-red in color, sensitive to the touch, and interfered with his work. They bled a little at times, and some of them presented points of suppuration. The patient stated that his disease commenced about eight years ago in the shape of a few, small, warty growths on the fingers, which steadily increased in size and number up to the present time. Dr. Cutler said he regarded the case as one of tuberculosis verrucosa cutis.

DR. P. A. MORROW said he regarded the case as a very remarkable one of tuberculosis verrucosa cutis. He had never before seen such an extensive development of the lesions on the palmar surfaces. This was probably due to the man's occupation.

DR. KLOTZ said he had had this patient under his observation for several months about three or four years ago. At that time he had a large patch

on his thumb which was at first regarded as possibly syphilitic in character. It failed to be affected, however, by specific treatment, and a positive diagnosis of tuberculosis was then made.

DR. ALLEN thought the clinical features of this case corresponded to the descriptions of tuberculosis verrucosa cutis, and were sufficiently distinct to establish the diagnosis. The speaker mentioned a case which he had shown where a single lesion covered the entire dorsum of a boy's hand. He had never before, however, seen a case where the lesions were so numerous.

DR. LUSTGARTEN said he thought the case was a typical one. The man's occupation, which necessitates the more or less constant handling of leather and chemicals, probably accounts for the multiplicity of the lesions.

A Case of Hypertrophic Lichen Planus.—Presented by DR. J. A. FORDYCE.

The patient was a man who was first presented by Dr. Fordyce about eighteen months ago, a report of the case being published in the JOURNAL OF CUTANEOUS AND GENITO-URINARY DISEASES for February, 1897. Since then the lesions, especially those in the popliteal region, have developed to an extraordinary degree.

DR. MORROW said that on account of the remarkable appearance of the papillomatous growths in the popliteal region, he was somewhat inclined to doubt the diagnosis of hypertrophic lichen planus, although he had no better one to offer.

DR. WHITEHOUSE thought the case was originally one of lichen planus, with secondary papillomatous development.

DR. ROBINSON said that on account of the color of the papillomatous growths, he did not think they had any connection with the lichen-planus process. In the ordinary hypertrophic cases there is a good deal of pigmentation which is lacking in this case.

DR. FOX said he had seen cases of hypertrophic lichen planus where the lesions were almost as pronounced as in this instance and very itchy, but in nearly all of his cases the patches were very rough to the touch, almost like a nutmeg-grater. In Dr. Fordyce's case, the patch in the popliteal space suggested to the speaker tuberculosis verrucosa. The lesions on the penis would tend to strengthen the diagnosis of lichen planus.

DR. KLOTZ said that while the lesions in this case would hardly suggest lichen planus at present, he did not consider that sufficient reason to renounce the former diagnosis. The lichen planus had spontaneously disappeared, as it very frequently does, particularly in the more generalized cases, leaving the hypertrophic conditions which might result from lichen as well as from other inflammations.

DR. J. C. JOHNSTON said that when this case was first shown, the ordinary lichen-planus lesions, with pigmentation, were present. The present appearance of the lesions, he thought, were quite compatible with the histological character of pure lichen planus. He regarded the case as an example of the hypertrophic variety of the disease, with an overgrowth of papillomatous tissue.

DR. LUSTGARTEN thought the eruption was quite unique and bearing no resemblance to lichen planus. In appearance, the lesions were more closely allied to multiple sarcomata of the skin.

DR. FORDYCE, in closing the discussion, said that when he first saw the case there was considerable pigmentation of the anterior and posterior surfaces of the leg. When the case was shown at the meeting last year, there was some doubt about the diagnosis. Dr. Colcott Fox of London, who was present at the meeting, was inclined to regard it as a case of

hypertrophic lichen planus. Dr. Fordyce said that personally he was somewhat in doubt as to whether the eruption bore any relation to lichen planus. Histologically, it was certainly a much deeper process; there was a new growth of connective-tissue involving the deeper tissues of the derma. As Dr. Lustgarten had suggested, the process seemed to be more closely allied to the group of sarcomata. In Hutchinson's "Atlas" there are pictures of similar cases where the lesions existed for fifteen years without effecting the general economy.

A Case of Syphilis.—Presented by DR. C. W. ALLEN.

The patient was a man with two warty lesions on the upper lip. He had a chancre on the penis thirteen months ago, and Dr. Allen said the lesions on the lip were undoubtedly specific. The case was interesting on account of the warty appearance of the lesions.

A Case of Rhinoscleroma.—Presented by DR. ALLEN.

The patient was a woman who had first come under his observation about six years ago. At that time he thought the case was a favorable one for surgical interference, but the patient had refused operation. Since then the disease had progressed to such an extent that an operation would now probably prove of no benefit.

In connection with this case, Dr. Allen presented a photograph of the patient taken by Dr. Piffard six years ago, and which he had shown to the Society at that time.

A Case of Psoriasis, with Affection of the Nails and Phalanges.

DR. H. G. KLOTZ presented a man, thirty two years old, with psoriasis and an affection of the nails and phalanges. The patient had once before been presented to the Society, in January, 1897, and a report of the case was published in the *JOUR. OF CUTANEOUS AND GEN.-URIN. DIS.*, May, 1897. At that time the condition of the nails and fingers was thought to be of neurotic origin by several of the members. The patient had then been treated with arsenic internally and ten per cent. salicylic acid soap plasters locally with apparently good results. For a time he was lost sight of; when he recently again came under observation he stated that last year his condition had improved so much that he had discontinued treatment. Recently, however, the fingers had again grown worse, but not as bad as they were when he was first seen. The joints of the phalanges are somewhat painful on pressure or movement, and the distal portion of the nails show a yellowish discoloration, with turning-up of their free borders and involvement of the nail-beds.

In addition to the lesions on the hands the patient has a number of scaly patches on the arms and legs, particularly around the elbows and knees, which are of undoubted psoriatic character. He admits that he has had similar eruptions for years, although he failed to make this statement when he was first seen.

Dr. Klotz said that in view of the psoriasis on the extremities, the condition of the nails is readily explained, but this does not account for the condition of the phalanges and the flexion of the phalangeal joints, unless we admit the rheumatic or arthritic character of psoriasis.

DR. FORDYCE thought the condition of the nails was of neurotic origin, and independent of the psoriasis.

DR. FOX said that in view of the undoubted psoriatic lesions on the extremities he was inclined to think that the condition of the nails was attributable to the same cause.

DR. LUSTGARTEN said that while he thought the condition of the nails was due to psoriasis, he was inclined to believe that the peculiar swelling of the phalangeal joints was independent of that disease. The latter reminded

him of Marie's osteo-arthritis of the phalanges, which is supposed to be an autotoxic condition.

TWO HUNDRED AND SEVENTIETH REGULAR MEETING.

DR. S. LUSTGARTEN, *President, in the Chair.*

A Case of Lupus Vulgaris.—Presented by DR. A. R. ROBINSON.

The patient was a man twenty-eight years old. One brother had died of tuberculosis at the age of thirty-five years, and one sister at the age of twenty-five years. His father died of pneumonia at the age of sixty. His mother, as well as all his other known relatives, were alive and healthy. The patient had an eruption which he first noticed when he was fifteen years old. It was situated on the back of the neck and consisted of isolated lesions, ranging in size from that of a pin-head to a finger-nail; the lesions were sharply limited, slightly elevated, dark-brown in color, with a shining surface. They were situated at the periphery of a patch nearly four inches square, the central part being occupied by scar-tissue, without any lupus lesions. The rest of the body is free of the disease and always has been.

DR. C. W. ALLEN said the case shown by Dr. Robinson was very similar to several which had come under his observation presenting an eruption the true nature of which he had never been able to make out clearly, and which he was not familiar with from the literature. In these cases the eruption was usually of long-standing; it resembled a serpiginous ulcerating syphilide, leaving a peculiar, reticulated scar, the peripheral lesions gradually breaking down and ulcerating. Specific treatment failed to have any effect on them. In some of the cases the lesions bore considerable resemblance to lupus erythematosus. They did not correspond to the clinical descriptions of lupus vulgaris. The speaker expressed the opinion that these cases, to which Dr. Robinson's belonged, were examples of an obscure form of tuberculosis of the skin.

DR. J. A. FORDYCE said the cases referred to by Dr. Allen were possibly of the type described by Gilchrist under the name of pseudo-lupus vulgaris, which closely resemble true lupus, necessitating a microscopical examination to differentiate them.

DR. LUSTGARTEN said the eruption in Dr. Robinson's case presented well-pronounced features of lupus vulgaris. The speaker said he had never observed any cases like those described by Dr. Allen. Gilchrist's disease resembled only a certain form of lupus vulgaris, quite dissimilar from the eruption in Dr. Robinson's case.

A Case of Dermatitis Papillaris Capillitii.—Presented by DR. P. A. MORROW.

The patient was a young negro with a group of lesions occupying the nape of the neck and occipital region. The eruption had existed for four years, and Dr. Morrow said he regarded it as a case of dermatitis papillaris capillitii with secondary keloidal formation. At times the lesions discharge blood and are extremely itchy and painful.

DR. FOX said he had an opportunity to observe quite a number of these cases in the early stage of the disease. In many there was suppuration; in several the eruption consisted of minute, rounded tumors, which gradually coalesced, forming larger lesions, and, finally—especially in the Negro race—terminating in a large keloidal patch. In some instances the eruption is distinguishable from keloid even at the outset.

DR. E. B. BRONSON said that several years ago he presented to the Society a case of dermatitis papillaris capillitii of the hypertrophic or keloidal

type, which afterward disappeared entirely, excepting for the loss of hair. In that case, as in the one shown by Dr. Morrow, the lesions occurred on the neck in the region where the collar is apt to cause friction.

DR. GEORGE T. JACKSON said that also in the case mentioned by Dr. Fox the lesions occurred on the back of the neck where the collar usually causes friction. He had seen three cases in negroes, all of whom had numerous keloidal scars on the face. The one shown to-night had these also. The speaker expressed the opinion that there is probably a close relationship between Kaposi's disease and keloid. At the same time he believed the case shown to be one of those known as dermatitis papillaris capillitii.

DR. LUSTGARTEN said he thought there was no doubt that Kaposi would classify this case as one of dermatitis papillaris capillitii. The speaker said that while he was inclined to regard this as a true case of dermatitis papillaris capillitii, he had thought it possible, in the light of more recent experience, that Kaposi had included different clinical entities under this term: for example, such affections as alopecia cicatricielle or other forms of acne or folliculitis decalvans. Dermatitis papillaris capillitii seems to be originally a follicular disease which is prone to develop into a keloidal form. It is also called acne keloide. Dr. Lustgarten said it had struck him that people afflicted with this disease are, as a rule, of a peculiar development: they have a short, thick neck and wiry or curly hairs, resembling the negro type. They are usually brunettes; in fact, he had never seen it occur in a blonde. The speaker said that some cases are cured by persistent epilation.

DR. FOX said that his experience had led him to the view that while this affection is more common in the Negro race, it does occur in whites. He agreed with Dr. Lustgarten that these patients usually have stiff hair, and a short, broad neck.

As regards treatment, Dr. Fox said he did not think he had ever seen a case cured. With the electrolytic needle there was temporary improvement, but ultimately it did harm rather than good, as it stimulated the growth of the hypertrophic tissue. In that respect it resembled true keloid. The speaker said he did not like the long name which Kaposi had applied to this affection, and would prefer, rather, to call it keloidal folliculitis.

DR. BRONSON said that in his case the patient had light brown hair.

DR. MORROW said that in the case under discussion the patient was anxious to have the growth removed by the knife, but he had been loath to resort to such a procedure, as it would probably result in the formation of a large, hypertrophic scar. The speaker said he was more inclined to try the Vidal method, which consists of making deep quadrilateral incisions through the entire growth. This expedient was first resorted to in order to relieve the intense pain which sometimes accompanies keloids in certain situations, and an unlooked for result was that it caused an atrophy of the growth. Dr. Morrow said he had resorted to this method of treatment in one case of keloid with very good results.

DR. FOX said that simple hypertrophic lesions can sometimes be very successfully treated by means of deep scarifications, followed by the application of glacial acetic acid. In one such case coming under his observation, where the face was covered by a network of ridges due to smallpox, the result of this treatment was very gratifying. In cases of true keloid it is apt to do harm rather than good.

DR. MORROW said that in a number of cases of cicatricial contraction of the skin following smallpox or from other causes he had secured very good cosmetic results by making deep incisions through the scar-tissue and then

forcibly retracting the skin and allowing the wound to heal with little slices of tissue in between.

DR. LUSTGARTEN inquired whether any of the members had tried thiosinin in these cases?

DR. JACKSON said he had seen it given by hypodermic injection without any benefit, both in hypertrophied scars and in keloid. It certainly gave rise to a marked local reaction, and for a time the hope is cherished that it is doing good. Most of the reported cases of beneficial results were, apparently, of hypertrophied scars, which not infrequently underwent spontaneous cures.

DR. FOX said he did not think thiosinamin had any permanent beneficial effect. In the cases that have been reported where its use was apparently beneficial, the same result could probably have been obtained by time and massage.

A Case of Tubercular Syphilde of the Face and Hairy Scalp Resembling Lupus.—Presented by DR. P. A. MORROW.

The patient was a middle-aged woman who had been under his observation about three weeks. She had an eruption which was first noticed about a year ago; it appeared on the left cheek and gradually extended upward, and now involves the forehead and ear on the left side and invades the hairy scalp. The speaker said he thought the case was one of syphilis, and it was of interest because of its close resemblance to lupus.

Report of Cases Presented at Previous Meetings.—DR. ALLEN said that his case of psoriasis, combining some of the elements of seborrheal eczema, shown at the last meeting, had greatly improved under treatment. On the body, chrysarobin had been used on one side, and anthrarobin on the other, under which all the lesions had disappeared. A few still remained on the face. To the scalp and forehead resorcin and sulphur had been applied, with the result of removing all the distinctly seborrheal lesions.

DR. ALLEN said that in his case of **Epithelioma of the Lip**, shown at the previous meeting, he had removed the lesions with caustic paste and secured a most satisfactory result, with soft cicatrix.

DR. H. H. WHITEHOUSE said that since the date of the last meeting he had been treating his case of **Lupus Erythematosus Disseminatus** with lotio alba co., without much benefit. He inquired whether any of the members could suggest a better method of treatment?

DR. DANIEL LEWIS mentioned a case where a suit had been brought against a physician by the relatives of a woman alleged to have died as the result of an external application which contained hydrocyanic acid. The woman died promptly after its application with all the symptoms of hydrocyanic-acid poisoning. The druggist who filled the prescription had also been sued.

A Case of Ulcerating Syphilitic Lesion of the Lip, Giving Rise to Severe Hemorrhage.—DR. P. A. MORROW reported the case of a young man who presented himself with a mucous patch on the vermilion border of the lower lip which had ulcerated and was covered by a thick crust which had existed for several weeks. In order to loosen this, poultices were ordered, and after its removal it left a deep, ulcerating surface. A few days later the patient came to Dr. Morrow's office with his clothes covered with blood and his handkerchief firmly pressed against the ulcer on the lip. On removing the handkerchief the blood spurted up from two points. On account of the rotten condition of the tissues it was found impossible to tie the spurting artery, and the hemorrhage was finally checked by obliterating the vessels with the galvanocautery. It was found that the bleeding came from two arteries which, after probably becoming enlarged

through the long-continued congestion, were involved in the ulcerative process.

A Case of Dermatitis Exfoliativa with Multiple Abscesses; Death.—Reported by DR. MORROW.

The patient was a woman with a generalized eruption which presented the objective features of dermatitis exfoliativa. There was very free exfoliation of the skin and a continuous rise of temperature, ranging from 102° to 105° F. There was also considerable inflammation of the parotid gland and a conjunctivitis. The case terminated fatally within six weeks after the appearance of the eruption. During the later stages of a disease, a number of abscesses developed in the perineum and in other portions of the body.

DR. LUSTGARTEN said that death was probably due to pyemia following an infection from the skin.

Dr. Morrow said there was probably a streptococcus infection. When the eruption first appeared it simulated erysipelas in some respects in the intense redness and heat of the skin. The lesions, however, were not delineated accurately, as we see in erysipelas, nor was the mode of extension the same.

A Case of Chancre of the Turbinate Bone.—Reported by DR. JACKSON.

The patient presented himself with an erythematous syphilide and a number of enlarged glands in the neck, anteriorly. A thorough search for the initial lesion revealed nothing but what apparently was an erosion on the left side of the nostril, on the turbinated body. It was circumscribed and covered by a yellowish crust. Dr. Jackson said he diagnosed the case as one of syphilis, and this diagnosis was afterward confirmed by Dr. R. W. Taylor. The erosion in the nose was doubtless the initial lesion, although without the eruption it would be difficult to make the diagnosis.

DR. ALLEN said that some years ago he had presented a case of chancre of the nasal septum at one of the meetings of the Society.

DR. LUSTGARTEN said he had seen one quite typical case of chancre of the nasal septum. The lesion was round, elevated, with a slightly depressed center. The preauricular and retramaxillary glands were enlarged. He also referred to another similar case, which he saw in consultation about a year ago.

A Possible Case of Syphilitic Infection from the Cadaver.—

DR. MORROW reported the case of a physician who had a chancre on the terminal phalanx of the left index-finger, with enlargement of the epitrochlear glands on that side and of several glands in the axilla. The patient stated that the lesion had developed at the site of an injury which he had inflicted upon himself with a knife while performing a post-mortem in a case of supposed tuberculosis.

DR. LUSTGARTEN, in reply to a question, said the bacillus of syphilis had never been cultivated. The speaker thought it was not very probable that this bacillus, which is so particular in its selection, would survive very long after the death of the individual. It has resisted all methods of cultivation in artificial media. In these respects it differs from the ordinary bacilli of septicemia, which multiply very rapidly after death and are easily cultivated artificially.

Dr. Morrow said that in leprosy we have to deal with a micro-organism which it is very difficult to cultivate, yet is supposed to possess an extraordinary tenacity of life, even after the death of the individual. Unfortunately we have no means of determining with absolute certainty whether the bacilli discharged by a leper are living or dead bacilli.

Selections.

CUTANEOUS DISEASES.

The Treatment of Lupus with X-rays and with Concentrated Light.—HERMANN KUMMEL (*Arch. f. klinisch. Chir.*, vol. lvii, p. iii, p. 630, 1898).

The author gives only his present results, as the time of observation is still too short to draw final conclusions. Of sixteen patients treated only twelve are reported. In one of the twelve reported cases lupus of the finger was cured, but later the finger was amputated owing to caries. In another case with supposed lupus of the nose the X-rays had no effect, the case proving to be syphilitic. In the remaining ten cases good results obtained. The process of healing was of short duration; there was no pain. There is no specific action of the X-rays upon lupus, as Finsen obtained good results with concentrated sun and electric light, and according to the author's experiments cultures of tubercle bacilli are not impaired in vitality by exposure to the rays. The effect is probably due to an electrochemical process or to a trophoneurotic action. It is preferable to treat large surfaces of lupus with X-rays rather than with concentrated light, as the resulting scars are smoother.

The Use of the Roentgen-rays in the Treatment of Skin Diseases.—EDWARD SCHIFF (*Arch. f. Derm. und Syph.*, xlii, p. 1, 1898).

Two lupus patients were treated by the author with X-rays with gratifying results. In the first case, where the flexor and extensor surfaces of the forearm were affected, the extensor surface upon which the rays were thrown underwent a remarkable change; the lupus area became covered with thin epidermis, the swelling disappeared, the skin, outside of some small islets of scar tissue, being normal. On the opposite flexor surface, which the X-rays could not reach on account of the interposed bones, the lupoid process did not change at all. The author draws the following conclusions: (1) The reaction ensues in about ten days after an exposure, and lasts for a considerable time; (2) the X-rays, owing to their specific action upon the lupus nodules bring into view the concealed tubercles; (3) the lupus nodules are loosened and fall out owing to the action of the rays; (4) there is an immediate decrease in size of the swollen glands in the lymphatic region of the lupus; (5) long exposure to X-rays induces the indolent tissue of the ulcer to begin the process of granulation. The effect of the X-rays is due to the inflammatory reaction evoked by them, which reaction changes the soil and consequently impairs the development of the micro-organisms.

Phototherapy.—NIELS R. FINSEN (*La Presse Med.*, No. 58, p. 17, 1898).

The author applied concentrated sun-rays and electric light to patients suffering from variola and lupus. By an ingenious arrangement he excludes the calorific waves of the sunlight, directing upon the affected surface only the blue or the violet-blue beams, which are essentially microbicidal.

An anemic condition of the affected surface permits most easily the passage of the rays. The author exposed to the influence of the light a surface of 1-3 cm. for two hours every day until the whole affected part was treated.

Under the influence of this treatment the borders of the ulceration take on an even surface, the redness diminishes, and the ulceration is cicatrized. Of 59 cases twenty-three were cured, thirty are still under treatment, and all except one are improving.

Cicatrization of an Ulcerating Epithelioma of the Face by a New Method of Applying Arsenious Acid (Czerny's Method).—
HERMET (*Ann. d. Der. et Syph.*, ix, p. 226, 1898).

An intimate friend of the author, a physician seventy years old, was suffering with an epithelioma of the face. The first appearance of the epithelioma was traced back thirty-five years, when it appeared in the form of a small pimple, and only in the last five years, owing to constant scratching, had it changed into epithelioma. The patient, not willing to undergo operation, was persuaded by the author to try Czerny's method of treatment. At first there was no beneficial results from the treatment; only after making himself personally familiar with the exact method of application in Czerny's clinic in Prague did the author succeed in curing his patient. The method was as follows: The thoroughly cleaned ulcerating surface is moistened with a brush dipped in the following arsenical solution: pulverized arsenious acid 1, ethyl-alcohol and distilled water, aa 75. The water and alcohol must be evaporated in order that the arsenious acid alone remains in contact with the ulcerated surface. This is the whole secret of success. The procedure, moistening and evaporation, is repeated several times in one sitting. The first application is painful but usually passes away during evaporation. Sometimes severe pain is felt for six or seven hours afterward. The best means of assuaging the pain is to send the patient out into fresh air. Morphin is seldom needed; no dressing.

Immediately after fixation of the arsenious acid, a serous-bloody liquid in great abundance begins to run from the surface, so that the patient is obliged to sponge it. During the night a reddish-brown crust is formed, which is removed on the following day, as far as possible without provoking bleeding or pain. The exposed parts are moistened with the same solution, while the crusted area is soaked with a solution of 1:100 to 1:50. The arsenious acid penetrating the crusty masses destroys the neoplastic tissue underneath. After several days the crust is in some places so thick and adherent that it is impossible even to raise a small particle, but the moistening with 1:50 solution must be continued till enucleation on the borders begins. The non-adherent portions are then daily removed with scissors. When fleshy granulations appear they must not be touched with the solution as the healing process is greatly retarded. The action of the arsenious acid can be noticed far from the ulceration, showing by that the extension of the process. When the crust disappears and the ulcerated surface is covered with healthy granulations the sore is treated as a simple ulcer. In the author's patient the sore was completely cicatrized after three-months' treatment.

Shortly afterward Gaston reported a case of carcinoma of the face treated by Dr. Hermet in the same manner but with very unsatisfactory results; the lesion was aggravated. The histological examination proved that while in the first case of Dr. Hermet the epithelioma was of a benign form, in the case of Dr. Gaston the microscope showed malignancy. Only after determining the character of the lesion can Czerny's method be applied successfully.—(*Annal. f. Derm. et Syph.*, ix, p. 563, 1898.)

Brault reports three cases of small epithelioma without adenopathies treated successfully with Czerny's method. In one case the cicatrix remained in good condition a year after cicatrization. He applied the same method

to two cases of lupus of the cheek and nose, respectively, with good results as to the cicatrization of the lesions.—(*Annal. de Derm. et Syph.*, ix, p. 572, 1898.)

Epithelioma of the Lower Lip Treated and Cured by Czerny's and Trunczek's Method.—É. JEANBRAU (*Presse medic.*, No. 75, p. 147, 1898.)

The peculiarity of the author's case lies in the invasion by the ulcerative process of the mucous membrane of the lip and in the infiltration of the commissure. Here the application of the arsenious acid according Czerny's method for two months resulted in total disappearance of the tumor. A year later nothing could be seen in the places formerly affected and no adenopathy remained.

Changes in Alkalinity of the Blood in Certain Skin Diseases.—M. A. TCHLENORFF (*Wratch*, xix, p. 248, 1898).

The study of the changes in the alkalinity of the blood in skin diseases has been much neglected. In the literature accessible to the author he could find only some vague statements by English writers regarding the alkalinity of the blood in urticaria, and two observations of Rumpf concerning two patients with lupus treated by tuberculin. He examined the blood of 25 patients treated for various skin affections in Pospelow's clinic. Each patient was examined by Landois' method several times, always taking the blood from the pad of second and middle fingers at a specified time, two hours before dinner. His studies led him to believe that: (1) In some superficial or local affections of the skin, as in favus, scabies, herpes tonsurans, alopecia areata, lupus vulgaris, and erythematous tuberculosis, atrophica cutis, the alkalinity of the blood is normal, while in dermatoses, where we may suppose some modification in general nutrition, as in dermatitis herpetiformis, purpura hemorrhagica, subacute and chronic eczematosa, erythema multiforme, pemphigus, lichen ruber acuminatus, elephantiasis, and psoriasis the alkalinity of the blood is diminished. (2) The alkalinity of the blood may in some degree guide the prognosis. (3) Arsenic does not increase the alkalinity of the blood and consequently acts upon the skin affection not by its influence upon the blood, but in some manner not yet explained.

Serum-therapy in Leprosy.—K. DEHIO (*Russian Arch. of Path., Clin. Med. and Bacter.*, vol. v, p. 537, 1898).

The horse serum was prepared according to Carasquilla's method with all due aseptic precautions during preparation. Nineteen patients with different forms of leprosy were subjected to the treatment, receiving an injection of 1-15 c.c. in the buttocks. The treatment was followed up for two months with some advantage, but no permanent effect was obtained. The fever was moderate, the patients supporting the injections very well; but neither the slightest trace of absorption of the leprosy nodules nor diminution of anesthesia, nor improvement in general health, as reported by Carasquilla, could be seen.

The author is inclined to explain the differences between the results obtained by him and by Carasquilla by the presence in Carasquilla's serum of some product of accidental bacterial contamination. That there is no specific antileprosy substance in Carasquilla's serum is shown by the clinical facts; that the same manifestations have been seen when tuberculin was injected into leprosy patients, and even during an attack of erysipelas in a leprosy patient is equally true. The action of the serum upon leprosy sub-

jects is due probably to the presence of proteins, albumoses, and other non-specific albumose derivatives in it.

The Development and Structure of the Vaccine Vesicle.—JULIAN STEINHAUS (*Gazeta Lekarska*, xviii, p. 274, 1898).

Unna's investigations of variola, vaccinia and zoster added to the list two new forms of degeneration of the epithelial cells; the ballooning and reticular liquefaction of the epithelium. To verify Unna's statements regarding the rôle of these two degenerations in vaccinia the author examined microscopically seventy-six animal pocks of twenty-four hours, three-, and ten-days' duration respectively. From these observations he draws the conclusion that Unna's degenerations—ballooning and reticular—do not play any part in the formation of the pock in animals, but Ziegler's dropsical degeneration takes place with typical mitosis, without, however, division in the cell-nucleus. This degeneration has some resemblance to Unna's reticular degeneration, but it cannot be identified with it. Certain epithelial cells undergo cloudy swelling before showing the degeneration described by Ziegler.

A Note on the Histology of Scarifications and Their Reparation.—AUDREY and THEVENIN (*Ann. de Derm. et de Syph.*, ix, p. 467, 1898).

Before removing by means of an operation two carcinomatous breasts of two women, the author scarified the skin of the breasts and subjected the sections so obtained to a minute histological examination. The scarifications were respectively of one hour, twenty-four hours, forty-eight hours, three days, and four-days' duration. The activity of the repair process is subject to some variations according to the initial depth and direction of the scarifications. The investigations are summarized as follows:

1. Scarifications pass through the whole epithelial layer.
2. After twenty-four hours the epithelium is reunited, while the derma is far from being healed.
3. The epithelium unites directly, while the derma is joined indirectly by means of a fibrinous clot.
4. At the end of five days traces of the cut in the derma may still be seen.
5. After five days the basal layer is not yet restored.
6. A number of fixed cells in the deeper part of the derma are stimulated owing to scarification, and
7. They are absorbed and removed by the lymphatics.

A Note on a Solitary Leiomyoma of the Skin.—CH. AUDRY (*Journal des mal. cut. et syph.*, x, p. 231, 1898).

The author gives a detailed histological examination of a case of leiomyoma occurring on the left arm near the deltoid muscle in a middle-aged woman. He especially insists upon the fact, that the elastic tissue is only separated and rarefied but neither disintegrated nor replaced by the bundles of fibrous tissue. It is an entirely different process from that which takes place in a neoplasm or inflammation.

The Localization on the Buccal Mucous Membranes of the Affection Improperly Called Porokeratosis. Preliminary Note.—

A. DUCREY AND E. RESPIGHI (PISA) (*Ann. d. Derm. et de Syph.*, vol. ix, p. 1, 1898).

Mibelli named the disease referred to "Porokeratosis." According to

the authors the disease does not limit itself to the skin only; the mucous membrane is very often also attacked. Of four typical cases of the disease seen by the authors, the affection was restricted exclusively to the skin in one case only. All parts of the buccal mucous membrane may be affected and may be recognized even if the skin lesions are absent. The lesions consist of small patches varying in size from that of a pin's head to a large lentil. The patches are round, oval, kidney-shaped, or irregular; their borders are clearly marked by an opaque white linear elevation, resembling a fine silk thread, surrounding a surface of opaline aspect. The center of the patches is uniformly opalescent and transparent, showing the rose tint beneath. The surface may be even or slightly depressed, and sometimes has an atrophic aspect. The linear elevation in some patches is single, in others it is divided in two parts: the internal is larger and more elevated than the external part. Sometimes the border is interrupted and its place is taken by a red depression, the same depression can be seen when the border is scratched away with the nail. The number of lesions observed, on the mucous membrane varied between two and twelve, being mostly isolated. The lesions are not accompanied by any subjective sensations; they are essentially chronic.

Histologically the lesions present: (1) an increase of the Malpighian layer; (2) some thickening of the superficial horny layer, especially of the extreme border of the patch. (3) Slight dilatation of the blood-vessels and small-cell infiltration of the connective tissue. (4) No change of the derma and glands.

Hyperkeratosis Figurata Centrifuga Atrophicans (L'hyperkeratose figuree centrifuge atrophiante) Improperly Called Porokeratosis—a Peculiar Skin-affection with Localizations upon the Skin and Mucous Membranes. A New Clinical and Histological Study.—AUGUSTE DUCREY AND EMILE RESPIGHI (*Annales de Derm. et de Syph.*, vol. ix, pp. 609-657, and pp. 734-792, 1898).

The author's original eleven cases with an exhaustive and elaborate criticism of all cases published by other writers are reviewed in this study.

Ducrey and Respighi give minute and detailed histories of their own patients.

In all of them the skin was affected, sometimes alone, sometimes (in six cases), simultaneously with the mucous membranes. The affection was never limited only to the mucous membrane. The disease has a tendency to appear in many members of the same family. In only two cases out of the eleven (the third and eleventh) did the disease appear on virgin soil, while the remaining nine cases were gathered from three families; two, three, and four cases respectively from each family. Outside of these cases—seen and examined personally by the writers—the first family had eight more members similarly attacked (in all 10), the second and third families one more each, and the third five beside those directly under observation. The disease may be limited only to the skin in certain members, while in other representatives of the same family the mucous membranes are also involved. The authors have not found the disease transmitted from husband to wife nor vice versa. In the first-mentioned family four members were nursed by the same woman, and all were affected.

The disease may begin at any age, the initial lesion being usually localized upon one of the extremities: head, hand, or foot. Usually it begins with a single lesion, which may remain isolated for a long period (in one case for thirty years). The favored localizations are, according to the order of frequency: the lower half of the limbs, the soles of the feet, the palms

of hands, the wrist, the lower half of the forearms, and the remainder of the lower extremities; the last places attacked are the arms and trunk. There is neither symmetrical disposition of the lesions nor grouping which might suggest a distribution along the nerves. The characteristic features of the patches upon the skin correspond with those upon the mucous membranes, with the differences due to localization.

Upon skin as upon mucous membrane the lesions are sharply circumscribed, presenting an area surrounded by an annular elevation. This margin upon the skin may be either very thin, presenting a white line, or very pronounced, thick, and callous. Upon the mucous membranes this ridge is always thin and seldom can be discovered by touch. The skin ridge is traversed in length by a groove, which shows very often a corneous seam in its center; upon the mucous membrane ridge this groove is entirely absent.

The central area of the skin and mucous-membrane patches may present more or less manifest traces of atrophy; it may have the normal skin color, more or less pale, or of brown-red hue owing to hyperemia and pigmentation. Sometimes the area is level with the healthy skin, sometimes it is depressed. Opaline patches may often be seen upon the mucous membrane without a ridge and raised above the surface of the adjacent healthy tissue, corresponding to callous skin patches without the annular margin. Small patches of superficial circumscribed atrophy may be seen upon the buccal membrane as well as upon the skin; these atrophied patches according to the writers undoubtedly represent the ultimate phase of previous disease. In both locations the disease runs a chronic course. The order in which the affection attacks the two tissues, and the time which passes between the appearance of the disease upon the second after the involvement of the first is not decided by the authors.

The histological examination of small skin-lesions showed that the central area may either be occupied by an opening of a tubular or acinous gland, or by a hair-follicle with its sebaceous appendage or no gland at all is present. The mouth of the gland is enlarged, packed with stratified and compact corneous cells with nuclei, whole or fragmented, and staining easily. The raised seam is formed by modified cells of the Malpighian layer and subjacent connective tissue, the cells of the latter being increased in number. Cornification of the rete cells is more or less advanced according to the stage reached by the examined lesion. The writers are inclined to accept a dermic origin of the lesion instead of the prevalent opinion, supported by Mibelli, Reisner, and Joseph, of an epidemic origin for the disease.

They draw the following conclusions:

1. This singular affection attacks skin and mucous membrane alike, producing in the latter the exact type of the skin lesions.
2. Owing to its special and peculiar characteristics the affection is to be considered as a separate morbid entity. It cannot be mistaken for Wilson's lichen, and under no condition can it be placed in the group of ichthyosis.
3. The name, hyperkeratosis figurata centrifuga atrophicans, is more appropriate, at least from a clinical point of view, than prokeratosis.

A Case of Porokeratosis (Mibelli's)—EMERICH BASCH, *Pester Med. Chirur. Presse*, vol. xxxiv, p. 626, 1898).

A plasterer, thirty-six years old, noticed in his tenth year a round, rough millet-sized lesion on his right hand between the thumb and index-finger. In succeeding years similar changes took place upon the inner surface of the dorsal aspect of the left foot, upon the radial surface of the left in-

dex, then upon the dorsum of the right foot. All the lesions itched slightly. Upon his face the lesions appeared when he was sixteen years old. The youngest patches—of twelve-years' standing—occupy the inner and outer surfaces of the left crus. They appeared in form of small nodules, and since then have grown extensively. Twenty years ago he scratched from the dorsal part of his hand a bean-sized tough efflorescence, and a profuse hemorrhage followed, since which time no new lesion has appeared on that spot. When first seen the right frontal region and the forehead above the left eyebrow were occupied respectively by one and four pea-sized plaques. From ten to twenty bean-sized and larger lesions were scattered over the cheeks and nose. Both corners of the mouth were occupied by patches which did not extend to the mucous membrane. The neck and penis showed some scattered lesions. The upper and lower extremities were also involved, the crura most extensively. The abdomen and back of the trunk were quite free, all the plaques were sharply defined with borders raised 0.5–3 mm.

The central part of the plaque is either normal or presents a rough surface owing to minute epidermic cones, which can be seen with a magnifying glass protruding from the pores. In parts where the lesions are exposed to mechanical irritation the plaques are rougher, and the hairy regions are either entirely denuded or separate perifollicular papules are found with or without umbilications, and with or without atrophic hairs. The primary efflorescences consist of minute, point-like cones, with an epidermic plug in the center or a depression when the latter is absent. Upon the mucous membrane near the corner of the mouth one half-centimeter-sized grayish plaque was visible.

Instead of Respighi's five divisions the author proposes to distinguish two main forms: (1) the initial lesion; and (2) plaques, which rarely reach the size of more than 2 cm., even if they are present for decades. The larger plaques are formed by confluence of disseminated plaques, or by mechanical irritation.

Histological research leads the author to accept Mibelli's opinion that the disease originates in the sweat glands, and especially in their epidermal portion, the changes in the dermal end of the gland and the small cell infiltration of the cutis are of secondary origin.

A bacteriological examination gave a negative result.

SYPHILIS.

Colles' Law and Choc en Retour.—DR. E. FINGER (*Wiener med. Wochenschr.*, 20 and 21, 1898. Abstract in *Monatsber. des Harn-und Sexual Apparat*, p. 356, 1898).

In his work upon Colles' law and the *choc en retour* Finger presents a number of theses which served as the basis of the report at the Naturforscherversammlung at Braunschweig.

There is undoubtedly a purely paternal as well as purely maternal syphilitic inheritance. The purely maternal syphilis may be transmitted to the fetus through the ovum or may be post-conceptual—transmitted through the placenta. The former is not proven but only acknowledged as probable by analogy with the transmission through the semen, while the latter has been proven by a number of exact clinical observations. Syphilis in the mother, even when acquired in the last months of pregnancy, may pass to a fetus conceived while both parents were sound.

The sojourn of a fetus, syphilitic through the father, in the uterus of a

healthy mother, may express itself in several different ways. On one hand, the mother becomes syphilitic (conceptional syphilis) by *choc en retour*. The possibility of *choc en retour*, the retro-infection of a mother by a fetus syphilitic from the father, is acknowledged theoretically from the analogy to the post-conceptional fetal infection, a fact, however, not yet proven, and probably incapable of proof. This holds good for early conceptional syphilis, where secondary symptoms appear early in conception without appearance of primary manifestation, as well as for the late conceptional syphilis, where tertiary syphilis makes its appearance without having been preceded by either primary or secondary manifestations. On the other hand, the mother does not become syphilitic, but, as in a majority of cases, in which the mother of a child by a syphilitic father, remains healthy, she acquires, during pregnancy, an immunity against syphilis (Colles' law). Or, finally, in a small number of unquestionable cases the mother remains wholly free from any influence of the disease during pregnancy, so that after birth she may later become infected either by her own child or in some other manner. In an analogous manner, children conceived by syphilitic parents may escape the disease and acquire immunity against infection (Profeta's law).

Doubtless this immunity is due to the diffusion of toxins from the diseased to the sound portion of the placenta. In one group of cases the placenta is penetrable by the virus, certainly is this so in the direction from mother to child; probably, though not proven, from child to mother. In other cases the placenta is not penetrable by the virus but is by the immunizing toxins, both from mother to child, as well as the reverse. Again in another group of cases the placenta allows neither the virus nor the toxins to penetrate and the healthy organism remains uninfluenced. Under what conditions, now one and now the other condition takes place, has till now escaped our knowledge.

Moreover, a number of exceptions to Colles' law (21) as well as to Profeta's (15) are known. It appears, therefore, questionable whether the nursing of a syphilitic child by a healthy mother should be advised as entirely without danger.

After all we must come to the recognition of the fact that the transmission of syphilis is not bound by irreversible laws. Although we may, from a large number of similar observations, lay down certain rules, yet all these rules are subject to not unimportant exceptions, the underlying cause of which we have as yet been unable to discover.

Reinfectio Syphilitica.—B. M. TARNOWSKY (*Wratch*, xix, p. 241, 1898).

A very interesting and striking case is published by the author, in order to sustain his belief in the curability and consequently in the possible reinfection of syphilis. In the end of 1886 a well-developed patient, thirty years old, of a neurotic disposition, consulted the author for two ulcers on the skin of the lower third of the left inguinal region, contracted after repeated intercourse. The floor of the sores was hard and the glands in both inguinal regions were swollen and painless. His mother had died of progressive paralysis and probably suffered with syphilis before the birth of the patient. The patient—the ninth child—suffered in his seventh year with paresis of right half of his body, which disappeared after a treatment lasting several years. Seven weeks after the appearance of the ulcers a syphilitic papular erythema covered the flexor surfaces of upper and lower extremities, and the lateral portions of the trunk. After thirty-six inunctions (2 to 4 grams of mercurial ointment) the manifestation disappeared, and iodid was administered to him daily for one month in 1-gram doses. A year after

the first manifestation of secondary syphilis a papular eruption was noticed upon the left palm, which was removed by twenty-six mercurial inunctions. The patient felt well for the following year. In the beginning of the third year of his disease the left inguinal gland began to swell and he was advised to apply twenty-four mercurial rubbings and to take in the following spring iodid for six weeks in 1 to 4 gram daily doses. The glands returned to their normal condition. In the seven consecutive years the patient was seen several times during each year by the author, who could not discover any syphilitic manifestations. In August, 1897, *i.e.*, ten years after his last manifestation of syphilis the patient noticed four days after a suspicious coitus two small ulcers in the sulcus glandularis. The attending physician cauterized the sores with carbolic acid, but gradually the floor and edges became infiltrated and a hardness noticeable even to the patient himself appeared. At the same time the right inguinal gland became swollen. After the sores healed, the patient did not pay attention to the remaining hardness, drank, had sexual intercourse, and walked a good deal. Three months and a half after the appearance of the sores he called upon the author, who noticed a moist papule upon the former induration, dry pea-size papules upon the head of the penis, a papular erythematous syphilid upon the trunk, especially upon the sides, and several pea-sized, scaly papules upon the back of the trunk and upon the right palm. The scalp was covered with an impetiginous syphilid. In the right groin there was one walnut-sized gland, hard, elastic, and slightly painful to the touch.

From this case Tarnowsky draws the conclusion that syphilis is perfectly and entirely curable by proper treatment and régime, even if the treatment begins when the secondary syphilitic manifestations appear; that it is cured by the sole and repeated administration of mercury and iodine, without any subsequent treatment with sulphur baths; that a moderate amount of mercury and iodine brings about the desirable end; that even patients tainted with a hereditary neurosis, but free from alcoholic tendencies, are curable.

The author condemns the pessimistic view of some physicians regarding the curability of syphilis, as such pessimism tends to inspire neither tenacity on the part of the physician to urge upon the patient following up the treatment nor confidence on the part of the patient that his disease is curable.

The author winds up his article with an appeal to physicians to publish not only rare cases of reinfection, but also cases of syphilis, which were entirely cured, and especially those verified by autopsies.

The Effects of Mercury upon the Kidneys.—J. J. KARVONEN (*Dermatolog. Zeitsch.*, vol. v, p. 113, 1898).

Basing his deductions upon sixteen personal experiments upon animals, regarding the action of mercury upon the kidneys, and upon a very careful critical study of the clinical facts published in the literature, the author gives a complete picture of the action of mercury upon the renal filter, considering critically every symptom produced by it, clinically and histologically. Some points upon which the author insists when he deals with the therapy of kidney diseases due to mercury are worth mentioning. Opium must not be used in diarrhea due to the drug. The bowels are to be kept open by means of oil, castor oil, and especially by washing the intestines. Atropin is sometimes of use, as the action of the heart and diuresis are increased. He lays special stress upon the two facts that mercury must not be administered before the condition of the kidneys is looked into, and that gingivitis is not always the first symptom of mercurial poisoning, as the

irritation of the kidneys may sometimes reach a high degree while the gums are still entirely healthy looking.

The Easiest Method of Discovering Mercury in Urine.—N. J. VYSHEMIRSKI (*Wratch*, vol. xix, p. 845, 1898).

The investigator provides himself with (1) a vessel of 1000 c. c. capacity, (2) a thin pipette of $\frac{1}{2}$ to $\frac{3}{4}$ cm. in diameter, (3) an alcohol lamp, (4) sulphuric and acetic acids, (5) gold-foil, and (6) iodine in crystalline form. Five hundred c. c. of urine are poured into the vessel, to which 25 to 30 c. c. of chemically pure strong sulphuric acid are added and the vessel shaken; the urine grows dark and the vessel is heated. Then 35 to 40 c. c. of chemically pure acetic acid (1-12) are added and the vessel shaken. Three meters of the foil are put in the vessel and left there for twenty-four hours. The foil before being thrown into the vessel is coiled around two fingers, in order to expose a large surface when the vessel is shaken. After twenty-four hours, if mercury is present in the urine, the surface of the foil will be coated with mercury in a form of an amalgam. The urine is poured out and the foil is thoroughly washed in water and carefully dried by absorbent paper. The increased weight of the foil will show directly the presence of mercury, or in cases where the amount of mercury is very insignificant, the foil is warmed in a tube with crystalline iodine, and bright-red biniodide will be formed.

A Calcified Gumma of the Suprarenal Gland in Congenital Syphilis.—N. VINOGRADOV (*Rus. Arch. of Path., Clin. Med., and Bact.*, vol. v, p. 6, p. 662, 1898).

Among 420 autopsies upon children with congenital syphilis, the author found only once a gumma of the suprarenal gland. A girl, one month and twenty-seven days old, died of diphtheria. The autopsy revealed changes in the liver, bones, and kidneys, and especially in the right suprarenal gland, which weighed 8 grams, to 4.5 grams of the left. The central portion of the suprarenal was occupied by a nodule surrounded with a fibrous capsule with prolongations into the adjacent tissues. In the periphery and center of the nodule calcareous concretions, the size of a pin-head, were scattered. Microscopical examination showed changes due to congenital syphilis.

GENITO-URINARY DISEASES.

On the Differential Diagnosis between Cystitis and Pyelitis.—DR. ROSENFELD (*Berl. klin. Wochenschr.*, No. 30, 1890. *Centrblitt. d. krankhftn. d. Harn-und Sexual Org.*, p. 521, 1898).

The author is of the opinion that by employment of the old rules we can differentiate almost all cases of pyelitis and cystitis by the urinary examination, provided that nephritis, in which casts are always present, be excluded. He presents the following points: (1) Alkaline reaction is not present in cases of uncomplicated pyelitis. (2) If the pus-cells are almost all much indented in contour the case points to pyelitis. (3) If the red blood-cells present are, for the most part, chemically or morphologically destroyed, this points to pyelitis only in the case of microscopic bleeding and absence of a tumor of the bladder. (4) Groups of small, round mononuclear epithelium may be regarded as supporting the diagnosis of pyelitis. (5) The most characteristic symptom is the relation between the relative amount of albumin and pus according to the following scheme:

1. Maximal degree: Much pus in the sediment of 1 liter; in cystitis, 0.1 per cent. albumin; in pyelitis, 0.3 per cent. albumin.
2. Medium degree: The layer of pus is about $\frac{1}{2}$ cm. in height; in cystitis, 0.06 per cent. albumin; in pyelitis, 0.2 per cent. albumin.
3. Slight degree: Layer of pus, 1 to 2 mm. in height; in cystitis, albumin is just recognizable; in pyelitis, 0.1 per cent. albumin.
4. Minimal degree: Pus only to be made out by microscope; in cystitis, albumin not demonstrable; in pyelitis, distinctly recognizable.

Etiology and Treatment of Varicocele.—DR. ESCAT (*La Presse Med.*, No. 12, 1898. *Centrbltt. d. krankh. d. Harn-und Sex. Org.*, p. 522, 1898).

Varicocele does not belong to the same order of diseases as varices, as of the leg, for example. The latter depend upon disease of the venous wall, while varicocele depends upon a congenital anomaly in the development of the spermatic veins. Heredity, tendency of the left side, where the venous system is of weaker development, the appearance in boyhood, the softness and cylindrical formation of the venous walls of varicocele in contradistinction to the phlebosclerosis of acquired varices—all these point to the conception of varicocele as a congenital anomaly in development. According to the judgment of well-known writers, Trelat and Le Fort, varicocele is not responsible for the many evil results ascribed to it; these are much more to be referred to other accompanying conditions of the disease. Therefore, an operation is indicated only in special complications, for instance in hemorrhage from ex-ulcerated varices. The best operation is resection of the scrotum.

Etiology and Prognosis of Varicocele.—DUPLAY (*La Médecine Mod.*, April 6, 1898. *Centrbltt. d. krankh. d. Harn-und Sex. Org.*, p. 523, 1898).

Varicocele is sometimes merely the symptom of another disease, for example, tumors of the kidney. Compression of the iliac vein is regarded by many authors as a cause of varicocele. According to Duplay, hereditary tendency to varicosities of the veins, occupation (prolonged standing), trauma, etc., play an etiological rôle. As for prognosis, varicocele tends in old age to clear up spontaneously, though atrophy of the testis may occur before this spontaneous cure takes place.

Hypertrophy and Epithelial Neoplasms of the Prostate.—DRS. ALBARRAN and HALLE (*Annales d. mal. d. org. gén.-urin.*, p. 797, 1898).

The authors report the results of the pathological study of 86 cases of prostatic hypertrophy. Out of the 86 cases, in 12 there were found formations, more or less, extensive, pointing to epithelioma.

In two cases the lesion was only in its beginning: in the midst of simple adenomatous lobules, fibrous or cystitic, which constituted almost the entire hypertrophied prostate, were one or two small lobules, very limited, having a structure typical of adenoid epithelioma; glandular tubules filled with cylindrical or cuboid epithelium in several layers, contiguous or separated in a measure by a fine stroma of connective tissue.

In two other cases, the same lobules of adenoid epithelioma were found, but numerous and voluminous, disseminated among simple adenomatous lobules, the stroma still intact.

In four cases, beside the lobules of adenoid epithelioma, there were

found the beginning of diffuse infiltration of the stroma, with epithelial cells *en train* and *en nappes*, irregularly distributed. In one of these cases the malignancy of the neoplasm was manifested by epithelial invasion of lymphatic sheaths of the peripheral nerves of the prostate and of the small nerve-fibers themselves.

In two cases, besides simple adenomatous or cystic lobules, there was a diffuse epithelial infiltration of the stroma.

In two cases finally the adenomatous lobules, the lobules of adenoid epithelioma, the epithelial infiltration of the stroma, and more advanced lesions of circumscribed alveolar cancer existed in varying proportions in the hypertrophied prostate.

Thus, in more than ten per cent. of the cases, a high percentage, without there being any clinical difference from that of senile hypertrophy, without the organ losing any of the macroscopic appearances habitual to hypertrophy of the prostate, the authors were able to prove by autopsy lesions of epithelial neoplasms advanced in degree, clearly malignant. These lesions were present in varying degree, some localized, some more extended and already diffuse, and others almost generalized throughout the entire gland.

These various types of progressive epithelial lesions, united in the same prostate, lead insensibly, and by successive degrees of malignancy, from the simple adenoma, benign, common to hypertrophy, to alveolar cancer of the prostate. Between benign hypertrophy and diffuse, malignant, prostatopelvic carcinosis, the authors recognize two forms of intermediary neoplasm: the adenoid epithelioma, and the intracapsular alveolar cancer, circumscribed or total, already described by Socin.

In these cases the gland had not passed the ordinary slight or medium prostatic hypertrophy in volume: macroscopically it had the character, form, and consistence of benign hypertrophy. Neither the urethra, the vesical neck, nor the periprostatic tissues presented destructive or invading lesions of carcinosis. Further, in these cases, the authors several times proved the existence of secondary lesions, glandular involvement, and visceral metastases.

Clinical observations help confirm these anatomical discoveries. In certain patients it is true cancer of the prostate may appear primarily and develop rapidly in a few months. Others, on the contrary, may exhibit for several years typical symptoms of benign senile hypertrophy. Then suddenly the physical signs and functional symptoms of cancer make their appearance and from this moment the course of the disease is rapid and fatal. The lesions observed by the authors explain this evolution and clinical transformation. They cite one case. A patient sixty-six years old presented the usual symptoms of hypertrophy for five years; prostate was uniformly enlarged, regular to rectal touch. There was an enlarged median lobe, causing incomplete retention. In 1895 prostatectomy of the median lobe was practised. Under the microscope the portion resected presented the ordinary picture of hypertrophy. In one point of the cut surface there was an evident proliferation of acini of the adenomatous type. Two years after the patient died of typical cancer of the prostate, with invasion of the iliac ganglia.

The authors draw the following conclusions:

Hypertrophy of the prostate is essentially a glandular lesion.

Most frequently it retains the character of benign adenomatous proliferation.

In a notable number of cases it may be transformed into malignant epithelial neoplasm, after a manner latent and imperceptible, finally giving the typical picture of cancer. Simple adenoma, cystic or fibrous; circum-

scribed adenoid epithelioma, infiltration of the stroma, intracapsular alveolar cancer, at first circumscribed, then diffuse. These are the various stages.

Sarcoma of the Cord.—DRS. PILLIET and PASTEARS (*Annales d. mal. des org. gén.-urin.*, p. 556, 1898).

Eight months before the patient, 44 years old, discovered the presence of a small tumor, the size of a filbert, in the lower third of the cord. It was pedunculated and attached to the cord, firm in consistence, with an irregular surface. Was not painful to pressure. It was situated about 4 cm. above the testis. Patient believing it had to do with his hernia pushed it up under his truss. During three months the tumor grew very slowly. There was a slight sense of uneasiness in the scrotum and sometimes lancinating pains. Then the tumor grew rapidly, without much pain. Tumor had doubled in size in the last two months.

Under operation the testis was found adherent and was removed with the tumor. Examination showed the tumor to be a myosarcoma.

Instillations with Protargol.—DR. E. DESNOS (*Annales d. mal. d. org. gén.-urin.*, p. 673, 1897).

The author publishes a short sketch of results obtained by him by the use of protargol by means of instillation in a series of cases, all of them chronic, of urethritis and cystitis. He divides the series of cases into: (a) urethritis containing gonococci, 7; (b) those containing very few gonococci, or those of secondary infection with other micro-organisms, 39; (c) tubercular urethritis, 8; (d) gonorrheal cystitis, 4.

The strength of solutions employed varies from 1 per cent. to 15 per cent., the best results being obtained with from 5 to 10 per cent. The amount of fluid employed varied from 20 to 60 drops, *i.e.*, after the ordinary methods of employing instillations. The instrument employed should have a rather larger lumen than those ordinarily employed for nitrate of silver, as the solution in from 5 to 10 per cent. is too viscid for the smaller lumen, and care should be taken that the instrument does not become clogged.

He finds that with the protargol there are never present the severe sensations experienced in the use of either silver nitrate or the sublimate instillations, and those patients who had previously been treated by the silver nitrate unanimously preferred the protargol.

Almost always, after the first instillation, an increase in suppuration was manifest in the first few hours, but this varied in the different cases. It was rare that it was prolonged after twelve hours even when as strong as 15 per cent. was employed. This discharge was greenish-white, very thin, almost like glycerin. In a very few cases there were some few streaks of blood, and these were almost all in the cases of tubercular trouble.

The instillations were repeated generally at intervals of forty-eight hours, but varying according to the reaction, every day if there were but little reaction. If the case came to a standstill, if no gain appeared after increase of strength of solution, then the remedy was abandoned in that particular case. There were no accidents noted in any of the cases. In five of the cases the progress of the disease was followed by the endoscope. In all, the mucous membrane rapidly returned to normal, from the first instillation in two of them, its polish, its normal brilliancy, and the normal folds reappeared very rapidly. The congestive redness, however, remained for a longer time and only disappeared in five to six days after cessation of the treatment.

In the cases of chronic urethritis containing gonococci he considered

only those suitable in which the discharge was very slight, not amounting to a drop. When it is greater he believes other methods, as lavage, to be better than instillation. In five of the seven cases the gonococci disappeared and did not return after the second or third instillation. In two of the cases they reappeared after several days of rest from treatment. These two cases, however, had accompanying chronic prostatitis with enlargement and unevenness of that gland. For the cases containing gonococci he believes the weaker solutions are best below 5 per cent.

Chronic Urethritis without Gonococci.—These are met with the most frequently; 39 were studied. Complete cure obtained in 32 cases, *i.e.*, complete disappearance of the tripperfäden and no return after the ordinary tests, the number of instillations varying from 3 to 18. Of these 32, in 24 of the cases instillations alone were employed. In 8, where there were inequalities in the caliber, dilatation also was employed, and internal urethrotomy in one.

Of the 7 cases not cured 5 were very much improved, but the filaments persisted in spite of a large number of instillations, 3 retired from treatment without improvement. No cases were rendered worse.

It is important to continue the treatment, at least 3 or 4 times after complete disappearance of the filaments in the urine. After taking this precaution the author had no disagreeable surprises. These supplementary instillations should be made with the weaker solutions. These cause absolutely no pain.

One fact of importance is the comparison of the results with this remedy with those furnished by instillations of the other caustics and antiseptics. Of these 39 cases 24 had already had such other treatment, 18 had had silver nitrate, 4 sublimate, and in 2 the other agent which had been employed had not been noted. Of these 18 cases some had had 6, 10, 15, 18, 30, and 38 instillations. In 3 cases the chronic urethritis had existed some years, and they had received many instillations of silver nitrate.

Tuberculous Urethritis, 8 in number, the first 4 were improved by the employment of protargol in weak solution. The discharge was slight, but the filaments numerous and thick. These diminished but never completely disappeared, the reaction after each instillation was always sharp. In some the results were practically nil. These presented but little urethritis, and the prostate was tumefied and nodular, and urination painful. It was in these cases that the streaks of blood were noted. This, in one, appeared the same day, in the others the next or following day, and lasted 3 or 4 days; it was merely a faint tinge of blood in the urine, and some filaments were colored.

The element of pain was influenced in all by the instillations. Four of the cases had had rather severe pain, which was improved; it was in two of these cases that the blood appeared. The author does not believe that the agent possesses any power over the tubercular disease, but acts only in the mixed infections without having any special influence over the bacillary element itself.

Gonorrheal cystitis, 4 cases, good effects in all. Two of the cases were intense, two of mean intensity. One important and necessary precaution is to be sure that the bladder is absolutely empty, that the medicament may reach the vesical neck. In one case the first instillation was without result, when it was found that the patient did not completely empty his bladder. At the second treatment after catheterization the effect was as prompt as in the other cases.

The amelioration is very rapid, coming on within a few hours after the

first instillation. The complete cure, with disappearance of all frequency and of every painful sensation, obtains more slowly, but was brought about in from 5 to 7 instillations, employed every second day. The solution was employed in 5-per-cent. strength. In one case, the sedative action sought was obtained by lavage of the deep urethra with a bulbous catheter and a weak solution.

The author believes it too early to pronounce final judgment as to the efficacy of protargol, but believes that its employment in instillations has given results worthy of attention.

Therapeutic Notes.

Scarification in Keloid and Chronic Inflammations.—LAWRENCE (*Brit. Med. Journ.*, July 16, 1898), employs a five-bladed scarifier. With it he minced, by cross-cuts, a painful keloid. After dusting with iodoform, pressure was applied by rubber tubing and plaster, and kept up for several months. A year later, a thin, white scar was left and the pain was gone.

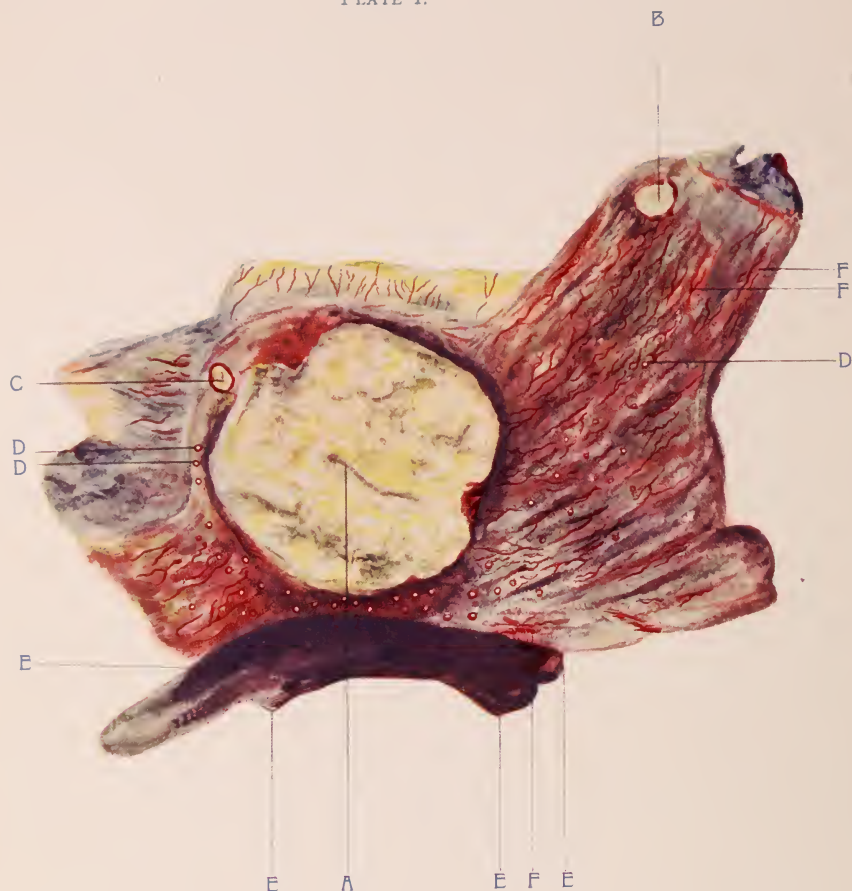
JACQUET (*Annals de Derm.*, No. 4, 1898), reports the use of scarification with good results in chronic patches of eczema and psoriasis, which failed to resolve under other treatment.

An Eruption Due to Exalgin.—LIROSSIER (*Bull. Gen. de Ther.*, l. 13, p. 492, 1898) reports a case in which an outbreak of round, red, papules appeared on the skin the day after the administration of 4 grains of the drug. It was preceded by erythema supervening in a few hours. The lesions became hemorrhagic on the hands, and later desquamation and bullæ appeared. Pressure on the papules caused pain but there was no itching. Erythematous patches appeared on the gums. The exanthem disappeared in three or four days.—*Amer. Journ. Med. Sciences.*

Bacteruria.—BONN. (*Prager Med. Wochenschrift*, No. 18, 1898), in a case of chronic urethritis and prostatitis administered salicylates, benzoic acid, and salol internally, and irrigated the bladder with sublimate and permanganate solutions without result. His best results were obtained with diuretics and 15 to 30 grains daily of urotropin.

Extractum Pini Sylvestri.—MERTENSE (*Wratsh, XIX.*, p. 849, 1898) has used this extract obtained by distilling fir needles with water which forms part of the treatment at various spas, as Wiesbaden, Pyrmont, etc., in the form of "pine bath," with good results in different diseases. The author tried the preparation alone and in combination with various remedies. The extract has certain physical properties which make it particularly efficacious: (1) It dries in 5 to 10 minutes; (2) it retains its elasticity, especially during the first 24 hours, so that the patient is able to bend or extend the extremity; (3) it is easily washed off with water (oil does not remove it); (4) it is easily dissolved in water and glycerin without losing its properties. Its disadvantages are: (1) that the extract produces a feeling of cold until it is dry, and (2) it sticks to the linen in cases where the patient perspires or is under the influence of warmth. This may be avoided by powdering the surface and applying a very thin layer. The therapeutic effects are briefly: (1) pruritus disappears in 2 or 3 days; (2) hyperemia is diminished; (3) it has an antiparasitic action (herpes tonsurans); (4) it has no irritative effect upon the healthy skin. The contraindications are the same as in the application of tar.

PLATE I.



TUBERCULOSIS OF THE BLADDER

Drawing made from fresh specimen
One-half natural size

DRAWN BY MISS E. G. HARDING

LABORATORIES OF THE JEFFERSON MEDICAL COLLEGE HOSPITAL

- A.—Centre of large ulcer. At the end of the line is a distinct furrow, to which was attached a recent slough.
- B.—Similar ulcer, but more recent. This is the ulcer from which most of the sections were made, including the one shown in the microscopic drawing accompanying this article.
- C.—More recent ulcer almost ready to become confluent with the large ulcer.
- D.D.D.—Miliary tubercles. These at first glance resembled ulcers, but close inspection showed that they had not as yet broken down. Many of these are seen, particularly at the base of the bladder.
- E.E.E.E.E.—The point from which was excised the trigone prostate and urethra.
- F.F.F.—Points showing the patchy inflammation of the mucosa, which accompanies tuberculosis of the bladder.

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TUBERCULOSIS OF THE BLADDER. ETIOLOGY AND PATHOLOGY.¹

By W. M. L. COPLIN, M.D.,

Professor of Pathology and Bacteriology, Jefferson Medical College, and Pathologist to the Philadelphia (Blockley) Hospital, and to the Jefferson Medical College Hospital.

IT seems to me that tuberculosis of the genito-urinary system is becoming more common, or at least the practitioner is more on the lookout for the condition than has been his habit in previous years with which I am familiar. A few years ago it was quite exceptional for us to be called upon to attempt diagnosis of genito-urinary tuberculosis by means of microscopic and bacteriologic examination. At present, scarcely a day passes by that we are not requested to conduct such an experiment. This careful clinic and pathologic study seems to be indicative of one of two possibilities, either the disease is of greater frequency or the methods of diagnosis have become so refined that we more readily recognize the lesion. As other forms of tuberculosis are not on the increase, I can see no reason for assuming any great increase in the frequency of vesical tuberculosis. It is possible that vesical instrumentation is more generally employed than it was in the past, but this does not offer any reason for an evident increase of cases. The only conclusion which we can at present reach is that the condition is being recognized and treated. I digress to mention the incident of treatment

¹Read before the Lycoming County Medical Society, at its annual meeting, at Williamsport, Pa., April 5, 1898.

by reason of the fact, now established beyond the possibility of dispute, *viz.*: tuberculosis in any organ is not of necessity a fatal lesion, and to this, I am sure, vesical tuberculosis will prove no exception. Alexander (JRN. GEN.-URIN. DIS., vol. xii, page 31, '94), reports a case in which the patient gained 42 pounds in less than one year. Professor Horwitz had a patient in the Jefferson Hospital treated by suprapubic incision and iodoform, the bladder lesion healing perfectly.

In order, however, to assure ourselves of this important advance we must be able to diagnosticate the lesion early, and begin treatment before the disease is far advanced. With the idea of possibly aiding the clinicians in the diagnosis of the condition, I have made a careful study of the case here reported and noted as far as I could the points brought out in reported cases, the diagnosis of which could not be gainsaid.

Case X. Y., aged twenty-three, single, white, male, born in Austria, occupation, tailor. Recently migrated to this country. He died of what was supposed to be pneumonia, not having had any medical treatment until a few days before his death. Had long had bladder trouble and had been told in Europe that he had stone in the bladder. He did not go to a hospital as he feared he would be cut for the stone, which he was said to have had.

Post-mortem 'twelve hours after death.—

Body was greatly emaciated. Subcutaneous fat atrophied and slightly edematous. Peritoneum and pericardium normal. Heart small and flabby, weight 240 gms. (8 oz). Both pleuræ closed by old adhesions. Miliary tuberculosis of both lungs. Spleen enlarged with chocolate-colored, diffuent pulp.

In order to consider the genito-urinary organs in detail, I shall defer their description to the last. Alimentary canal, liver, pancreas and retroperitoneal structures, not tuberculous. No permission having been obtained, the central nervous system was not examined. Suprarenals, normal.

Kidneys.—The left kidney is but slightly edematous; pale; capsule smooth and but slightly adherent. On section the cortex is swollen, striated, the areas of the labyrinths distinctly paler than the medullary rays. The Malpighian bodies are pale. The cortex contains four caseous areas, each surrounded by a dense fibrous wall, and the cavity containing caseous material. The largest of these areas is 1.2 cm. in diameter, the smallest .2 cm. The organ weighs 190 gms.

The right kidney shows slight striation of the cortex, similar to

¹ This I have abstracted to condense.

that already noted as present in the opposite organ. Otherwise it is normal. Weight 164 gms.

The medullary structure of both organs showed no gross evidence of disease.

The bladder is contracted. The external surface is apparently normal. On opening it contains 20 c.c. of pus-like fluid. Just above the opening of the ureters is a round ulcer 7 cm. (approximately $2\frac{3}{4}$ inches) in diameter with elevated and thickened edges. See Plate 1, Letter A. Its base is uneven and irregular and covered by dirty, yellowish sloughing material which can readily be scraped off. The edges are raised, indurated, and at points slightly undermined. The base of the ulcer extends to the muscular coat of the wall, but shows no external evidence of its existence. The opening of the ureters is apparently normal. Around the ulcer are many small, yellowish granules, apparently tubercles. Plate 1, Letters D.D.D. Many similar masses are situated in the mucosa, being fairly evenly distributed over its surface. In the upper part of the posterior wall is a small ulcer .75 cm. in diameter. Plate 1, Letter B. Like the preceding, its edges are also elevated and slightly undermined. Both ulcers are surrounded by a zone of redness which gradually fades off into the surrounding mucosa which, while not so red as the zone immediately surrounding the ulcer, still shows innumerable small vessels, bright red in color, and interlacing and anastomosing in somewhat grotesque arborescent figures. These are at points grouped together so as to form the blotches of patchy cystitis. Plate 1, Letters F.F.F. The bladder wall is much thickened and the cavity small. There is no detectable lesion of either the pericystic tissue, prostate or ureter, urethra, seminal vesicles, vas deferens or testicles. The descriptions of the ulcer, its histology, etc., will be given with more detail when considering the pathology of the lesion.

Structure of the Bladder.—Preliminary to the consideration of the subject proper, it might be well to review the histology of the bladder and to call attention to such peculiarities of its structure as may bear, either directly or indirectly upon the etiology and pathology of tuberculosis of its walls.

In common with the pelvis of the kidney and the ureter, the bladder has a mucosa which is structurally slightly different from other mucosæ. The epithelium is of the stratified variety, neither truly columnar nor squamous, but of that peculiar type of epithelium commonly spoken of as "transitional." The number of layers of epithelium is usually small, but still offering more protection against infection than is found in most mucous membranes covered

by fully formed columnar cells. This supports the views of Moullin¹ who states that he has seen the bladder remain uninfected after months, all of which time it contained tubercle bacilli brought from above. We can therefore say that under the same conditions of infection, it is highly probable that the gastro-intestinal mucous membrane would be more susceptible than that of the urinary tract. While considering the form of the bladder epithelium, it is well for us to remember that the microscopic recognition of epithelium from different portions of the conducting apparatus, meaning thereby the pelvis of the kidney, ureter and bladder, cannot be differentiated with that clearness which most clinicians would have us believe possible. If the normal epithelial cells in the different areas, so closely resemble each other, how futile must be any effort to identify the source of epithelium greatly changed by an inflammatory process. Moullin very properly calls attention to the utter impossibility of determining, microscopically, the source of pus in urine.

The submucosa possesses nothing distinctive. We must remember however, the occasional presence of lymphoid masses which might mislead the novitiate by their crude resemblance to tubercles. It would seem, however, that a careful study of the condition should always enable one to clearly recognize the important differences.

The muscular layer of the bladder has no structural characteristics which we need at this point consider. Physiologically we must remember that increased demand for its contractile power is productive of a very high degree of hypertrophy. This hypertrophy greatly thickens the wall and in that way partly protects the overlying serous layer, where present, from suffering so early and in so marked a manner from extension to its surface of the tuberculous process. We shall later note the alterations which occur in the muscular coat as a result of its increased thickness and activity.

Etiology.—Of course the essential etiologic factor in tuberculosis of the bladder, as in tuberculosis of other tissues, is the tubercle bacillus. The route through which the bacillus reaches the bladder may be roughly considered as falling under some of the following:

Direct implantation or mural inoculation. This manner of infection might occur from infection of the bladder wall by urine carrying the bacillus downward from the upper urinary tract. Infection by instrumentation which might possibly account for a small percentage of cases. Infection by instrumentation presents, in addition to the danger of carrying tubercle bacilli into the bladder, also the danger of wounding the bladder wall, abrading the mucosa or so

¹ "Inflammation of the Bladder and Urinary Fever," 1898.

injuring the protecting layers of epithelium as to favor implantation. Particularly does this danger strike us as important when there is tuberculosis of the ureter or kidney. An injury under such circumstances endangers greatly the patient by rendering the mucosa liable to infection by the bacillus during its stay in, or passage through, the bladder.

Tuberculosis quite commonly invades the bladder by extension from the ureter. This represents a form of extension by continuity, the lesion in the ureter having in a large percentage of cases arisen through infection from above. The frequency with which the trigone and the orifice of one or both ureters, is involved, well illustrates the relation existing between ureteral and cystic tuberculosis.

As is well known of direct implantation of tuberculosis on other mucous membranes, the ability of the bacillus to reach the connective tissues is greatly favored by inflammatory conditions of all kinds. These inflammatory conditions lessen the resistance of the individual by depleting the protective powers and locally denude the area involved to such an extent as to favor implantation. The occasional coincidence of calculi in the bladder or ureter and tuberculosis of the viscus involved are points bearing upon the possibility of secondary implantation on a previously prepared soil. The case reported by Professor Horwitz in conjunction with this paper is one bearing upon this very point.¹ A small calculus was present in the ureter. The small sloughs thrown off from tuberculous ulcers might well act as nuclei for calculi.

Extension to the bladder from contiguous organs or tissues represents a quite usual method or route of invasion. Such extension undoubtedly occurs in the cystic involvement, secondary to primary tuberculosis of the prostate or seminal vesicles and it is not improbable that, in the male, extension from the rectum might occur. In rare cases of tuberculosis of the tissues anterior to the bladder secondary extension to that organ would, of course, be possible. There might be reason to believe that tuberculosis could extend from the peritoneum to the bladder, but such a course does not seem probable.

The bacillus, in the course of general dissemination by the blood stream, might find its way to the bladder and in a small percentage of cases one could conceive of the possibility of tubercular infection spreading to the bladder through the lymphatics. Moullin lays great stress on the relation existing between tuberculosis of the kidney, also tuberculosis of the epididymis and tuberculosis of the

¹ This case will be published later. It is referred to again in the present paper.

trigone. He calls attention to the fact that the lymphatics of the mucous membrane of the pelvis of the kidney, communicate with those of the ureter, and these in their turn with those of the submucous plexus of the trigone and neck of the bladder. In this way he explains tuberculosis around the mouth of the ureter secondary to tuberculosis of the pelvis of the kidney. He believes that extension from the epididymis occurs in the same way, as the epididymis has lymphatics in free communication with the network at the base of the bladder.

Many authorities regard the occurrence of vesical tuberculosis, as an infection through the blood of doubtful possibility. When we remember, however, that a bladder may have its protective power, its ability to resist infection, greatly reduced, if not lost, by some coincident or antecedent inflammatory process, we may understand that tubercle bacilli reaching the organ by or through the blood may find a highly favorable point of least resistance in which to proliferate and induce their characteristic lesion.

The larger percentage of cases are undoubtedly induced by the urine carrying the bacillus from the kidney or ureter, and the bladder becoming involved by mural implantation. Probably next in order of frequency is the extension from the ureter directly to the ureteral orifices and the bladder. Less commonly infection might occur from tuberculosis of the prostate. The involvement of the bladder by extension from the seminal vesicle is possible, but undoubtedly rare, and probably least common of all is infection of the bladder from the blood stream.

With regard to the age of the individual, the data which pertain to all forms of tuberculosis here apply. While no age is exempt from the disease, Moullin having observed the disease in a child of four years and in a man of seventy years, experience shows that the most frequent period is between the ages of fifteen and thirty years, but the fact that tuberculosis of the bladder may occur at any age, does not enable us to place very much diagnostic importance upon the age of the individual in any given case. The conclusion given by Gross that the disease in this form has a mean age of about twenty-six years, may be accepted as approximately correct.

The male is more liable to the disease than the female, although the primary solitary tubercular vesical lesion is probably more frequent in women.

Family susceptibility or the existence of tuberculosis elsewhere in the economy are points of importance to be considered when dealing with the diagnosis.

Morbid Anatomy.—The morbid anatomy of tuberculosis of the bladder is largely dependent upon the extent of the infection and the method by which the infection reaches the organ. We recognize two forms, circumscribed and diffused. The circumscribed might properly be spoken of as focal, as even when clearly circumscribed, it may occur at a number of points in the bladder wall. This is also essentially the chronic or ulcerating type of the lesion, and may be sharply differentiated from the diffuse or miliary type of the affection. As a most perfect example of the focal, or chronic ulcerating type of the affection under consideration we have but to consider those cases of vesical tuberculosis which arise as the result of extension by continuity or from some contiguous viscus. The lesion of this form is most commonly situated in or near the trigone and particularly around the orifices of the ureters. That such location is positive proof of extension from above is disproven by the case reported by Le Boutillier.¹

This observer reports a case in which a tuberculous ulcer of the bladder, secondary to renal tuberculosis, was located on the anterior aspect of the bladder wall.

Moullin explains the occurrence of tuberculosis in the area of the trigone as being more frequent, by reason of its extremely vascular structure, holding that this increased vascularity renders the tissue more susceptible just as the epiphyseal end of growing bone is more frequently attacked by tuberculosis than the shaft. In speaking of the relation existing between ulceration of the trigone and the kidney, Moullin believes that a tuberculous ulcer extending around the ureteral orifice is always indicative of tuberculosis of the kidney which that ureter drains.

The ulcer seen in the focal form of the disease which we are considering is singularly round and discoid. There is no ulcerative process with which I am familiar in which this roundish characteristic is more marked. The irregular ulcers noted by Newman (quoted by Senn) were certainly not the ordinary form of tubercular ulcer. We rarely see an ulcer which extends in diameter in any one direction. The explanation of this is not clear, but would indicate that from the primary focus of infection the dissemination occurs radially in all directions. Even the confluent ulcers rapidly lose the isthmus which at one time partly separated them and quickly assume a roundish outline. The floor of the ulcer is shaggy, of a dirty yellowish color. It is uneven in contour but remarkably regular in color and shagginess. The diameter of the ulcer varies within wide limits;

¹JOURNAL GENITO-URINARY AND CUTANEOUS DISEASES, vol. xii, page 213, 1894.

probably the smallest ulcerating tubercle is approximately 1 or 2 mm. and the enormous size which the ulcer may reach is illustrated in the case reported, the largest diameter of the ulcer in this case being 7 cm. (approximately $2\frac{3}{4}$ inches). Commonly the ulcer does not become larger than 1 or 2 cm. or about the size of a 5-cent piece. The floor of the ulcer is the submucosa containing considerable embryonic tissue. In some instances and at a few points in any ulcer the muscular wall may be exposed. In the case reported there is no evidence of involvement of the muscular coat by tubercles, and I think extension into the muscular wall must be rather infrequent. Senn however, makes the statement that these ulcers frequently penetrate the muscular layer and may perforate the entire wall. It seems highly probable to me that the penetration of the muscular wall is secondary to some mixed infection. This view is borne out by the fact that tuberculosis involves all forms of muscular tissue but rarely, and extends into it slowly.

The edges are elevated and slightly undermined. The yellowish slough, to which I have already referred, commonly extends up into the margin of the ulcer but not over the margin, involving the surrounding mucosa. The edge is hard to the touch and it seems not improbable that the site of the ulcer might, in favorable cases, be determined by rectal palpation or quite readily vaginal palpation in the female, the distinct induration marking sharply the outline of the lesion. The margins of the ulcer are extremely vascular and not uncommonly show the orifices of medium size blood-vessels, from which it is probable the hemorrhage takes place, giving rise to the symptom, hematuria. One could understand that the dense rigid edges which surround the tuberculous ulcer, with their high degree of vascularity, when the organ contracts closely upon the ulcer, as it does in the last stage of micturition, hemorrhage could easily be induced by the pressure brought to bear directly upon the highly vascular margin with its denuded blood-vessels but partially thrombosed. Occasionally these ulcers are multiple and not uncommonly the evidence, as in the present case, is that the points of ulceration are not all of the same age. There is abundant reason for believing that the primary ulcer may be followed by secondary ulceration at some distance from the primary lesion without the intervention of continuous infection. The secondary ulcers represent points of mural implantation, probably upon some minute area, the protective epithelium of which has been lost as the result of some preceding or accompanying lesion. These secondary ulcers are commonly small.

Surrounding the margins of the ulcer, whether it be primary or

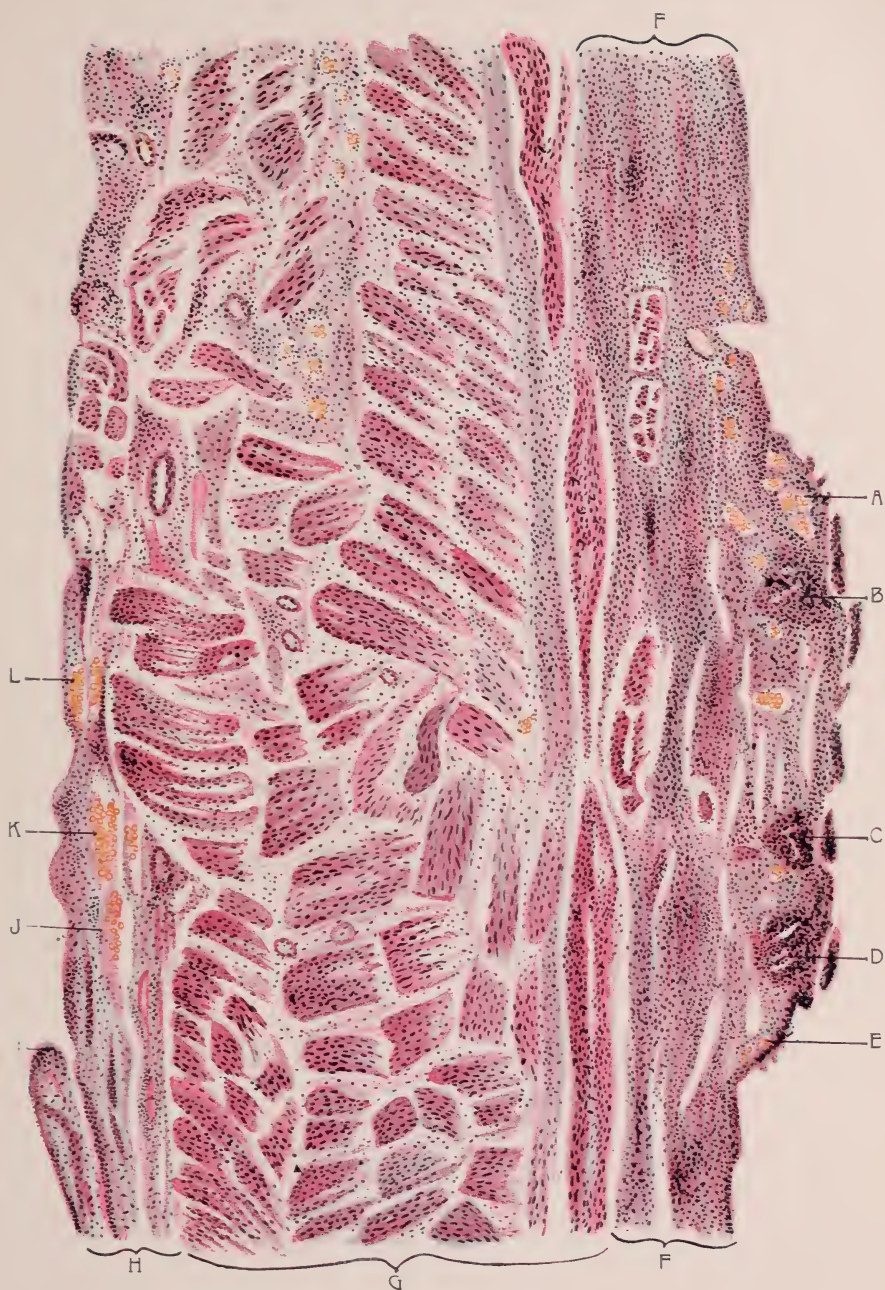


PLATE II.

Section through bladder wall. Tissue hardened in corrosive sublimate, infiltrated with paraffin, stained with hematoxylin and eosin. Section prepared by Prof. H. F. Harris. Drawing made by Miss E. G. Harding. ($\frac{2}{3}$ in. obj.; 1 in. eye-piece.)

- A.—Vascular margin of ulcer showing distended blood vessels. E.—Same.
- B.C.D.—Tubercles showing beginning breaking down with overlying sloughs.
- F.—Submucosa showing intense round-cell infiltration and thickening. The cellular infiltration is most abundant.
- G.—Section of the muscular wall. Attention is called to the rather abundant infiltration of round cells.
- H.—Serous and subserous layer, which to the left of "I" has been largely denuded. (NOTE.—This denudation probably occurred during removal of the specimen.)
- L.K.J.—Intensely engorged blood vessels of the subserous tissues, with extensive rhexis.

secondary, is a band of distinct hyperemia. This zone is usually not wide, rarely extending as far as one centimeter. It is most marked at the ulcerated margin of the overhanging mucosa from which it fades off slowly to the color of the remaining mucous membrane. The blood-vessels near the margin of the ulcer are usually large, many branched, and portray an arborescent distribution.

Even without the dissemination of tubercles over the surrounding mucosa there occurs a patchy cystitis manifested by areas of redness on the mucous surface. Plate 1, Letters F.F.F., and 1 cm. above the end of the line E. on the left of the plate. Bryson has noted points of submucous rhexis, punctate submucous hemorrhage, surrounded by ramified blood-vessels closely resembling those already described in the hyperemic zone of the ulcer. These points of punctate hemorrhage may possibly represent the primary stage of areas of coagulation necrosis which later will slough and afford suitable points for subsequent inoculation, and the more perfect implantation of the tubercle bacilli, thus explaining the development of secondary ulcers. The grayish-yellow sloughs thrown off from the base of these ulcers may occasionally be found in the urine. Bryson had the good fortune to note the discharge of one of these small sloughs from the ureter while examining the interior of the bladder by means of the cystoscope. He observed that the orifice of the ureter projected into the bladder and gradually extruded a small slough followed by a cloudy purulent discharge of urine which had probably been backed and had gradually displaced the necrotic tissue from above. These sloughs should contain abundant bacilli and are commonly easily detected in the urine. Unfortunately, they are not always present.

The diffuse, disseminated or acute tuberculosis of the bladder may, I have no doubt, arise independent of any pre-existing tuberculous lesion in the viscus. Under such circumstances it forms a part of a general miliary tuberculosis. The case herewith reported, is an example of an engrafted acute lesion in the mucosa already the seat of a chronic process. When developed, the acute or disseminated lesion is marked by a multiplicity of tubercles irregularly, not uniformly, distributed in the mucosa. Each tubercle will manifest itself as a distinct gray, yellow or yellowish-gray dot about one or two millimeters in diameter, perfectly circular and surrounded by the narrowest possible rim of redness. It may be slightly elevated but in the present case it was neither raised nor could it be felt by passing the hand over the perfectly visible tubercles.

I shall dismiss this type of the lesion briefly as it is probably not

amenable to treatment. I call attention to it by reason of the diagnostic value afforded by finding the distinct tubercles. In making the diagnosis by means of the cystoscope there should be no difficulty in giving a positive opinion when once these small areas are clearly recognized. There is in the writer's opinion nothing for which it would be possible to mistake them. Their appearance is thoroughly characteristic. Between and around them and without any apparent connection with them, will be noted patches of distinct engorgement suggestive of the patchy cystitis described by all writers on the subject of tuberculosis of the bladder. So far as my observations go, however, there is nothing diagnostic in this rather frequent patchy redness, seen to a more or less marked degree in all forms of cystitis.

Morbid Histology.—(See Plate 11.) Considerable discussion has arisen as to what part of the mucous membrane is first involved. With our present knowledge it is not probable that any recent observer has maintained that the tubercles are primary in the epithelial layer of the mucous membrane and not in the submucosa, a view held by many of the older writers. The histology of the anatomic tubercle necessitates its development in, or in contact with, the connective tissue. The anatomic tubercle is essentially a connective-tissue product; the cellular elements of which it is composed are undoubtedly the progeny of the connective tissue and the assumption that tuberculosis of the epithelial surface can arise without the tubercles being in contact with the connective tissue, must, of necessity, be incorrect. Some of the later writers neglect to mention or fail to make this point clear.

The tubercles situated in the submucosa must owe their origin, in a certain percentage of cases at least, to bacilli which have passed over and through the lining of epithelium or found ingress as a result of denudation; finally coming in contact with the connective tissue, they are there implanted. The tubercles are undoubtedly materially modified, not showing exactly the same histologic structure in the bladder wall as that with which we are so familiar elsewhere. In the first place with an extensive lesion one would expect a large number of tubercles; such however, is not the case. The first of the tuberculous ulcers, in the present case, is scantily supplied with tubercles. In addition to this fact, it must be noted that, even while extremely superficial, the tubercles tend to undergo the necrosis very rapidly, breaking down and leaving but little identifiable tuberculous structure behind them. Just under the tuberculous ulcer there is very little round-cell accumulation, while at the margins of the

ulcer the augmentation of round cells is particularly abundant. It is largely due to this that the margins are so distinctly elevated. In addition to this accumulation of round cells there is a slight increase in the fibrous tissue which increase accounts for the induration. In addition to the induration and elevation the margins of the ulcer show an unusual degree of vascularity; this is rather unique in that the other forms of tuberculous ulceration with which we are familiar are so commonly associated with a marked obliterative endarteritis, while in the margin of the ulcer in this case, the size and abundance of blood-vessels present attracts the attention of the observer. These are the vessels from which, it is reasonable to presume, the hemorrhage occurs. This statement is borne out by the fact that there is intense distention of the blood-vessels which surround the ulcer, the distention being far more marked in the margin of the ulcer than in its base. The thrombi which occlude the blood-vessels are evidently recent and in many of them there is fragmentation of the cells and breaking down. One can understand, with this large number of blood-vessels, but poorly thrombosed, how easy it would be for the septic processes to extend widely and possibly involve the circulating blood, once they had ingress to the bladder cavity.

In the foregoing I have attempted so to outline the essential histologic elements present in the focal form of the disease. The diffuse or disseminated lesion deserves but brief mention. The tubercles in this form are solitary, each mass purely alone and even those tubercles disseminated around or in the neighborhood of a tuberculous ulcer show but little or practically no evidence of confluence. This is, of course, due to their age, not having persisted sufficiently long to run together. Histologically they appear as very superficial growths, a fact explaining the error once held with regard to their location and just mentioned above. In the present specimen, giant-cell formation is not so clearly defined as we often see it in tubercles elsewhere. Necrosis sets in early and but few bacilli are to be found. No one has observed any evidence of "healing-in" and when recovery takes place it is after the tuberculous tissue has been removed or has sloughed.

An important lesion noted in connection with the tuberculosis of the bladder, in whatever form it occurs, most marked however, in the chronic form is contraction and induration of the muscular wall. The diminution of the size of the cavity is often extraordinary. It will be an exceptional case indeed in which the bladder will retain as much as two ounces. So far as we are aware, no explanation has been offered for this phenomenon. In the present case, in addition to

the tuberculosis, there is considerable invasion of the muscular wall by small round cells such as are ordinarily seen in the neighborhood of a tuberculous focus. One could understand that the contraction is, to a certain extent at least, explained by the fibrous changes which occur in the vesical wall. The tendency toward contraction in the connective tissue formed around a tuberculous area, is well seen in the contraction which occurs in the neighborhood of the tuberculous ulcer of the intestine and the puckering seen on the serous surface of the intestine in the area which corresponds to the tuberculous ulcer in the interior. Where the bladder condition is complicated by an obstructive lesion in the urethra, one can understand why there should be hypertrophy of the bladder wall, but even this fails to explain the enormous thickening of the wall which is occasionally seen in cases without obstruction, and still present in Horwitz's case long after continuous drainage. Sometimes the muscular wall attains the thickness of one or two centimeters.

A few observers have noted, in addition to the thickening and induration, points, or even areas of considerable size, so softened as to be easily lacerated and often extending through the entire vesical wall. Moullin calls attention to the danger of rupture of the bladder as a result of these points of softening. No pathologic study has been made, so far as we have been able to determine, of the exact character of this peculiar lesion. It is evidently rarely present and probably represents a secondary, possibly pyogenic infection of the bladder wall. A careful examination of the bladder in the case reported failed to show, at any point, recognizable softening.

In no case have I been able to find any mention in literature, nor is there in the present case, any evidence of involvement of the serous covering of the bladder. When there has been miliary tuberculosis of the serous covering, it has been associated with miliary tuberculosis of the remainder of the peritoneum without any distinct evidence that the lesion in the peritoneal covering of the bladder was any older than the lesion in the remainder of the serous cavity.

The Urinary Conditions.—These will be referred to by Professor Horwitz in his paper, hence I do not take it as necessary for me to go into the matter, and will only consider the finding of the bacilli in the urine.

It is well established that tuberculosis of the urinary apparatus may be widespread, the area involved large, the gross lesions marked and even old without the investigator having been able to demonstrate the presence of bacilli in the urine. Various explanations have been offered for this well-established fact. The sugges-

tion has been made, that the acid reaction of the urine militates against staining. We have satisfied ourselves that this view is incorrect. I requested Dr. Rosenberger, Demonstrator of Bacteriology in the Jefferson Medical College, to conduct the following experiments: Tubercle bacilli were mixed with urine both acid and alkaline in reaction. Tubercle bacilli were mixed with sterile urine, ammoniacal urine, and urine containing a number of infections both pure and mixed. From these mixtures stains were repeatedly made and in none of the experiments was there any failure to demonstrate tubercle bacilli. After allowing decomposition to proceed for days and even weeks there was but little change in our power to stain the organism. These experiments, apparently, conclusively demonstrate the incorrectness of any view which attempts to explain our inability to find the organism on the ground that the admixture with the urine causes the bacillus to lose its faculty of taking the usual stains.

I am aware that many writers view this matter differently. There can be no doubt that perfectly fresh samples of urine offer better results on examination; we discovered this quite independently of Moullin who had previously observed the fact. He considers that the *secret of finding tubercle bacilli lies in rapid sedimentation by the centrifuge and immediate staining*. He further observes that urine which has stood sufficiently long to sediment in the ordinary conical glass *commonly fails to show the organism*, and further observes that examinations under such conditions are of no value.

Since the experiments, made by De Schweinitz, demonstrating his power to cultivate the bacillus on a medium acid in reaction, and since he has noted the important morphologic change induced by this growth in the presence of an acid, it has occurred to me that possibly the acid reaction of the urine might modify the morphology of the organism so that we no longer recognize it. In addition to De Schweinitz's observations we have the observations of Lubinski made one year previously. He also cultivated organisms on an acid medium and noted the morphologic changes which occur. Under such conditions the organism clubs, assume crescentic and involution types which scarcely resemble the bacillus as commonly observed. This occurrence of involution forms would also explain the scantiness of tubercles, indicating thereby its weak pathogenesis.

After all it seems to me our failure to find the organism, while partly due to some of the conditions named above, is, to a greater extent, due to the small number of bacilli present in the urine. When we do find it, there is, so far as we know, no difficulty in its identification.

After a careful study of the Smegma bacillus we are convinced that the errors in diagnosis which have occurred have been due to faulty or imperfect bleaching and washing and would accentuate strongly the necessity of alcohol (50 per cent.) for washing out the acid used for differentiating as directed by the most careful workers. Moullin believes that the danger of confusing the bacillus of smegma with that of tubercle may be avoided by the use of Melchior's catheter.

The shreds of tissue sloughed from the ulcers should contain the most organisms. When found there is a singular disposition toward clumping which is more marked in tuberculosis of the pelvis, ureter or bladder than when the lesion is in the kidney structure proper. Particularly is the clumping marked when the lesion is in the bladder or, although apparently to a lesser degree, when a tuberculous lesion ruptures into the bladder from tuberculosis of the prostate or seminal vesicle. The methods of demonstration, staining, and inoculation experiments are clearly outlined in current books, and I need not consider them.

SYMPTOMS AND TREATMENT OF TUBERCULOSIS OF THE BLADDER.

By ORVILLE HORWITZ, B.S., M.D.,

Professor of Genito-Urinary Diseases, Jefferson Medical College; Surgeon to the Philadelphia Hospital; State Hospital for the Insane; Consulting Surgeon Hayes Mechanics' Home.

IT is very unusual for the bladder to be affected primarily by tuberculosis; as a rule, a tubercular attack of this viscus follows an involvement of the kidney, prostate gland, seminal vesicle, or epididymis.

The severity of the symptoms will depend upon the stage and development of the tubercular contamination, and whether or not secondary infection with pus-producing micro-organisms has taken place.

Tuberculosis of the bladder may occur at any age; I have met with it in children of three years of age and in persons sixty-four years old; it is most common between the ages of fifteen and thirty.

As a rule, the onset of the malady is insidious and extremely liable to be mistaken by the practitioner for a harmless disorder, which will readily yield to treatment. As the disease advances, especially if the part involved be in the vicinity of the neck of the bladder, the symptoms presented will strongly resemble those of

calculus. In fact, lithotomy has been performed for the extraction of a presumed stone in the bladder, only to have the operator find, after opening the organ, that the case was one of tuberculosis.

When tubercle attacks the bladder primarily, the first thing to attract the patient's attention is his frequent desire to urinate. This condition pertains from two to three months, when the individual will observe that not only is there a marked increase in frequency during the day, but that he has to arise once or twice during the night. Pain, which now begins to manifest itself, increases in severity as the disease progresses; it is usually experienced about the middle of the penis. This symptom is very significant of tubercle, and differs from that which pertains in calculus, where the pain is felt at the meatus.

As the bladder becomes more involved pain is experienced in the hypogastric region, when the organ is distended. As the interstitial structures of the bladder become more thoroughly involved a gradual weakening of the detrusor muscles takes place, resulting frequently in the stoppage of the passage of water. This condition is usually associated with pain in the vicinity of the neck of the bladder. Inability to completely drain the organ is a late symptom of the disease.

Hematuria is frequently a prodromal symptom in vesicle tuberculosis, occurring only at intervals, and merely in quantities sufficient to impart a reddish tinge to the urine. Profuse hemorrhage following micturition usually implies ulceration of the bladder.

The condition of the urine is determined by the process of the disease, being different at the onset from what it is when the malady has progressed to the stage of ulceration; at first it varies very slightly from the normal, save that blood will be found in it in small quantities from time to time.

If the mucous membrane alone is inflamed the urine will be acid in reaction; it will be turbid if pus be present. As the disease progresses and the inflammation becomes interstitial, a state frequently associated with ulceration, the urine will be ammoniacal, which condition is due to the decomposition of the nitrogenous constituents of the urine and the breaking up of necrotic tissue by the micro-organisms which are present, which liberate carbonate of ammonia, and which in turn acts as an irritant to the mucous membrane. A large amount of tenacious gelatinous pus will be present. Albumen will be met with in greater or less quantity depending on the amount of pus, or whether or not there be a diseased condition of the kidney as a complication.

Pus is only found when the tubercular condition has reached the surface of the mucous membrane; it is abundant when ulceration is present; occasionally blood will be detected, as well as bladder epithelia, together with tubercle bacilli.

The tubercle bacilli may not always be detected by the ordinary method of examination of the urine of patients suffering from tubercular cystitis. König has pointed out that it is probable that the staining qualities of the tubercle bacilli are diminished or entirely destroyed by the alkaline condition of ammoniacal urine. In suspected cases of tubercular cystitis, where an ordinary examination has failed to exhibit the presence of the tubercle bacilli, an experimental inoculation should be made on a rabbit.

When the urine contains pus the various microbes of suppuration can be discovered without difficulty.

In the later stages of tubercular cystitis the urine will contain amorphous phosphates, together with crystals of the triple phosphates.

A condition of phosphaturia is often associated with long-standing inflammation of the bladder, especially where the prostate gland is involved in the inflammatory process, and the patient is at the same time neurasthenic.

Polyuria frequently exists as a complication with an inflammatory condition of the prostate and bladder, especially if the neck of the viscus be involved. When the bladder is irritable and its capacity is lessened by inflammatory thickening of its walls, the secretion of an abnormal quantity of urine forms a very distressing condition, giving rise to frequent desire for urination.

The cystoscope is a most valuable instrument with which to make a diagnosis of tubercular cystitis, as well as to aid in differentiating the involvement of the ureter or kidney.

When the tubercular condition involving the kidneys extends to the bladder secondarily, the symptoms closely resemble those of renal calculus.

Infection of the bladder from the seminal vesicles usually presents symptoms closely allied to those of vesicle calculus. When this occurs there is not only a frequent desire to micturate but the bladder will not tolerate the presence of more than four ounces of urine; and the pain is relieved when the bladder is but half emptied. The end of the act is often followed by the emission of a few drops of bloody urine.

When the disease attacks the bladder through extension from the prostate gland the symptoms are those of acute inflammation of the

neck of the organ. Hematuria is a constant symptom and the patient usually is neurasthenic. A digital examination, per rectum, will reveal the fact that the prostate gland is somewhat enlarged, and that it is tender to the touch. Sometimes nodules may be felt in the wall of the bladder directly in the rear of the gland.

Retention of urine is only met with when the neck of the bladder or the prostate gland is involved.

Incontinence of urine is a very late symptom and is associated with a contracted bladder and an extensive involvement of the neck of the organ.

In the latter stages of the disease the walls of the bladder become thickened and contracted until the capacity of the viscus is not over one or two ounces. This condition is always associated with an urgent and frequent desire for micturition.

Treatment.—The management of cases of tubercular cystitis is most unsatisfactory and distressing; the prognosis is always grave. Out of a large number of cases that have been under my care, I recall but two instances of spontaneous subsidence of the affection. In both the bladders of the individuals were left so contracted and crippled that they could not contain more than two ounces of urine, which necessitated the desire for micturition at intervals of about every two hours; otherwise they enjoyed perfect health.

Dietetic, climatic, and proper hygienic surroundings play as important parts in the treatment of tuberculosis of the bladder as they do when any other organ of the body is invaded by this disease.

The various mineral waters, buchū, uva-ursi, and similar remedies I have long since abandoned. They are not only of no service but frequently disturb the digestive organs. Dependence should be placed on those drugs which are antitubercular, as well as urinary antiseptics.

The two remedies which are most valued as antitubercular are guaiacol and creosote. I have frequently found much benefit derived from the use of guaiacol, beginning with 3-drop doses, to be gradually increased to 20 drops, three times daily; to be continued without intermission over a long period of time.

The principal urinary antiseptics which are indicated when the urine contains a large quantity of pus are salol, resorcin, betanaphthol, betol, naphthalin, salycilic acid, boric acid, eucalyptus, ammonium-benzoate, and methylin blue. All the remedies here enumerated have decided toxic properties and hence should not be administered if the kidneys are diseased, nor if the quantity of urine excreted be below normal. These medicines when taken into the stomach are

excreted with little change in the urine, and are hence destructive to micro-organisms and at the same time restrict their growth.

Salol is a very valuable urinary antiseptic; it is broken up in the intestinal canal into salicylic acid and phenol, which are absorbed and excreted in the urine with little or no change. It seldom interferes with digestion and has a decided inhibitory action on the development of urinary bacteria. I frequently employ with benefit the following combination:

R	Codiae sulph.	.	.	.	.	.	.	gr. v
	Salol	.	.	.	.	.	.	gr. c.
M.	Ft. capsules No. 20. Sig. One after meals.							

Of late I have given methylin blue, in 2-grain doses, in cases of pyuria, and find that it exerts a marked antiseptic effect.

Benzoate of ammonia enjoys a great popularity for the relief of alkaline fermentation, but I have derived very little benefit from its employment. The best remedy for preventing bacterial decomposition of the urea, and thus rendering the urine alkaline, is one which has recently been brought to the notice of the profession by Dr. Arthur Nicolaier of Gottingen: urotropin, which should be given in 5-grain doses in capsules four times daily. One advantage of this remedy is that it can be employed without fear in cases where there is interstitial nephritis.

A combination from which I have often obtained good results is one composed of:

R	Codiae hydrochlor.	} aa	.	.	.	.	.	gr. v
	Ext. Cannab. Ind.		.	.	.	.	.
	Guaiaacol carb.		.	.	.	.	.	gr. c.
M.	Ft. capsules No. 20. Sig. One after meals.							

Attention is always to be paid to the condition of the bowels. Iron, compound syrup of hypophosphites, with cod-liver oil, should be administered when indicated. All exercise which has a tendency to produce congestion of the pelvic viscera should be interdicted. Pain should be relieved by suppositories of opium and belladonna.

Local treatment, such as injections and solutions have not proved as beneficial in my hands as I had hoped. Any instrumentation in a case of tubercular disease of the bladder should be executed with the most carefully sterilized instruments, otherwise incalculable damage may be inflicted on the patient. Over-distention of the bladder should always be guarded against, as its tendency is to aggravate the local condition. Irrigation with solutions of nitrate of silver or corrosive sublimate have not proved beneficial in my hands; on the contrary, I am firmly persuaded that in many instances I have found the results to be injurious.

I have seen improvement follow instillation by means of a sterilized Keys-Ultzman syringe, a remedy suggested by Collin, who advises a twenty-per-cent. solution of the carbonate of guaiacol in sterilized olive oil, one or two grams being injected twice daily. The local use of iodoform in this condition has not been, as a rule, satisfactory, but I am certain that I have seen improvement follow the daily instillation of 30 minims of the following solution:

R	Gum tragacanth	.	.	.	.	.	gr. xl
	Iodoform (sterilized)	.	.	.	.	.	gr. ccclx
	Sp. vini rect.	.	.	.	.	.	m. lxxx
	Aqua Destil.	.	.	.	.	.	f $\frac{3}{8}$ viii.

When the urine is loaded with pus and detritus much benefit is to be derived from irrigating the bladder twice daily with either a hot normal salt solution, a saturated solution of boric acid, or a teaspoonful of the salicylate of soda in a pint of distilled water. For this purpose an instrument should not be introduced into the urethra or bladder, but the viscus should be filled after the method suggested by Valentine, *i.e.*, by hydrostatic pressure.

In several instances I have employed, by means of instillation, a solution of the trichlorate of iodine, varying in strength from one-fifth to one-half of one per cent., and have found it a very valuable antiseptic. Sooner or later, if the patient live long enough, permanent drainage becomes necessary in order to relieve pain, tenesmus, and the frequent desire for urination. For this purpose two operations are advised: either perineal or suprapubic cystotomy.

In tubercular cystitis I have long since abandoned the first-named operation. In spite of every effort the urine cannot be prevented from escaping alongside of the drain, keeping the bedding and clothing of the patient constantly wet. The perineal wound frequently becomes tubercular, giving rise to a permanent urinary fistula, which is very aggravating and distressing to the patient.

Another objection is, this method of treatment requires long rest in bed which is often injurious to the patient. For these reasons I much prefer the suprapubic route which besides offers superior advantages to the operator in treating the vesical tuberculosis through the suprapubic incision. If on opening the bladder an ulcer is discovered it can be destroyed by means of the curette and the actual cautery, the bladder being tamponed with iodoform gauze. I have done this on several occasions with marked benefit to the patient.

When the suprapubic fistula has once been established the bladder can be irrigated and local treatment carried on through the opening.

Tuberculosis affecting the female bladder is to be treated by precisely the same methods as those recommended for the male. Should drainage be necessary suprapubic cystotomy is preferable to the formation of a vaginal fistula.

A REPORT OF THREE CASES OF URTICARIA PIGMENTOSA.¹

By HENRY W. STELWAGON, M.D.,
Philadelphia.

STRICTLY speaking the title of this paper should be two cases instead of three, as one of the three has already been made a matter of record. To present this group more clearly, however, the liberty has been taken of presenting a brief resumé of the case formerly reported. The literature of cases of urticaria pigmentosa is gradually increasing so that at the present time as many as perhaps sixty odd cases have been reported. There still remains much doubt, however, as to its real place in dermatological classification, and this fact alone justifies, I believe, the recording of other cases, with the hope that some advantage, be it ever so slight, may be derived. These three cases constitute the sole cases under my observation in an experience of twenty years.

The first case met with was in the early part of 1889, a full report of which was made before this Association in that year. The patient was a boy of six years, a blond, of robust physique, and in good health otherwise. The family record was also good. The mother had in earlier life and also in the summer preceding the patient's birth, urticarial attacks of the usual type. The eruption began when the boy was eighteen months old, and since that time the disease had continued uninterruptedly. The eruption appeared without any attempt at regularity, new lesions, few or in numbers, making their appearance from time to time. The covered regions of the body were the parts upon which the spots were most numerous, especially the neck, the sides of the trunk and about the genitalia. The face and other parts were, however, not exempt. The lesions eventually disappeared without leaving a trace. Itching had never been a troublesome symptom. The eruption present when inspected consisted of the following: large pin-head to large pea-sized rounded, some clongate, reddish-yellow, papule-like elevations;

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many similar elevations surmounted with a small vesicle with a somewhat thick and light-yellowish epidermal covering; flattened, elevated, small and large pea-sized yellowish- or salmon-colored lesions; small spots of yellowish, or pale-yellowish pigmentation, with but slight, if any, elevation; spots of similar size, of the color approaching the normal skin, with possibly a yellowish-tinge, over which the

FIG. 1.



CASE I.

epiderm appeared slightly loose and wrinkled, and in some the follicular outlets seemed enlarged, giving the appearance faintly similar to the slight atrophy which follows lupus erythematosus; and, finally, there were also to be seen a few ill-defined wheal-like lesions. Some of the retrogressing lesions, those which were still somewhat elevated, bore a slight resemblance to both lupus deposits and to

xanthoma. The most prominent color was yellow, somewhat on the salmon. In the early life of a lesion, however, a reddish-tint was probably the more noticeable, in fact the beginning was somewhat similar to the wheal of an ordinary urticaria, although possibly smaller and less inflammatory in appearance. Such beginning lesions were to a slight degree itchy, but this was of a passing char-

FIG. 2.



CASE III.

acter and never marked. The skin on being rubbed exhibited a slight tendency to become urticarial.

The second case of this group came under my observation in the winter of 1895, and is the case portrayed in the second part of Duhring's "Cutaneous Medicine," and which is well shown in that photograph. The patient was a female child aged eleven months. She was of robust appearance, and in other respects in good health. She had blue eyes, brown hair, and fair skin. She

had not had any of the ordinary diseases of childhood, and had, in fact, been well since birth. Digestion was apparently good, bowels regular, and sleep undisturbed. The skin affection began when the child was three and a half months old, first showing itself on the lower extremities; the other parts became gradually involved, and finally no part was exempt. Even the scalp, palms, and soles did not escape, but showed many lesions. Several months after the eruption had first made its appearance it had become pretty well generalized. When first seen by me the upper trunk, shoulders, and face exhibited the eruption in the greatest profusion, although it was quite abundant on all parts. At the lowest estimate there were several hundred lesions. On certain parts, and in some lesions on other parts the eruption, when not too closely examined, suggested a resemblance to the lesions of the earliest stage of variola. In places especially after the lesions had existed for some time, there was a strong suggestion of xanthoma. Some lesions had, the mother stated and as I myself observed subsequently, entirely disappeared without leaving a trace, some persisting only several hours or days. The latter left behind some elevated pigmented spots, which, however, gradually flattened and faded away. The lesions began as ordinary whitish hives with pinkish or pinkish-red periphery, very much like mosquito bites. These soon became reddened in their entirety, and then as the lesions grew older, dwindled slightly in size and assumed a yellowish-red aspect; later a bluish tinge became the more prominent, and finally the lesion flattened out to the ordinary level and became bluish-yellow—the spots being eventually without elevation. When first seen by me the eruption presented the lesions in various stages, similar to a great extent to the first case, but there was no disposition to vesicular capping. The evolution in the more or less permanent spots was slow, several weeks or months elapsing before complete flattening had ensued. Here and there several lesions were crowded closely together. The intervening skin is made easily red or pink by rubbing or scratching, and in some places small urticarial lesions can be brought out, and to a moderate extent slightly raised welts also. Itching was not a marked feature. It was most noticed when the child was first undressed—she would then make more or less successful attempts at rubbing or scratching. There was no history of hives or skin disease in others of the family except with the mother's brother who had one attack of ordinary urticaria. In this child the disease seemed to be favorably influenced by arsenical administration. The patient had not been seen for two and a half years till several days ago. At this time the disease was still present

but was less active and many of the elevated lesions had disappeared—that is they were present in much less numbers. There were, however, many stains to be seen. The child's general health was still good.

The third case of this series was first seen recently, in the early part of the present year (1898), at the Northern Dispensary, coming under the conjoint care of Dr. Chas. N. Davis and myself. It was a child, a young girl, of eight years of age. She was of medium complexion, of moderate build. The general health was only fair, the child not being very strong or vigorous, and suffered from frequent colds. The eruption first made its appearance when three months old, and since that time, now a period of over seven years, had gradually extended and increased in activity. It was first observed on the trunk, and then by degrees invaded the arms, legs, neck, and hands. There were also some spots on the chin and forehead. They were most numerous on the neck, although they existed in abundance elsewhere, especially upon the trunk. The extent and distribution are shown in this photograph taken when the case was first seen. The spots began apparently as ordinary wheals or mosquito-bite-like lesions. Some of these behaved as ordinary hives, being transitory in character, passing away in minutes or in an hour or so; others persisted, became yellowish, reddish-yellow, and some salmon-colored. Finally the color changed to a bluish-yellow or faint purplish. In such lesions the evolution was slow, weeks being required. On some parts, especially the neck, when the lesions were mostly at the reddish-yellow or yellowish stage, there was a strong resemblance to xanthoma. These persistent lesions, soft to the touch, gradually after weeks, flattened and left pale brownish or faint purplish stain; these the mother stated finally disappeared entirely. In this case itching was quite marked. Rubbing or scratching would at times cause wheals to appear, usually of the typical evanescent character; but no welts could be brought out, the several times this was tried. In this case the disease was worse and more active in warm weather. No history of urticaria in sisters or brothers, but the mother had had one attack. This patient is still under observation.

Several points are emphasized in these three cases. The beginning lesions were, for the most part at least, wholly urticarial in their earliest stages; many behaved as such and disappeared, in others there seemed to be some mild hemorrhagic deposit with a tendency to more or less permanent cell infiltration. The peculiar pigmentation apparently resulted, therefore, from some secondary or accidental

change in the ordinary hive lesion. The xanthoma-like appearance suggested a new growth element. The neck and trunk were the parts upon which the eruption was most abundant. The disease began in the three in very early life, in one when eighteen months old, and in the other two in the first six months. It is probable in this first case that it had a much earlier beginning, the subjective symptoms being but slight, it could readily have escaped observation until the eruption was present in moderate profusion. In one case an attempt at vesiculation of the summit, a condition sometimes noticed in ordinary cases of urticaria, was observed. In two of the three cases the subjects were females. The impression in short that these three cases have made upon me is that the disease is, in its beginning at least, essentially an urticaria, and that the subsequent peculiarities are due to some secondary changes in the lesions. This impression is based purely upon clinical observation, as in none of these cases did the opportunity present itself of obtaining sections for microscopical study.

RECOVERY WITH RESTORATION OF THE VESICAL
FUNCTION FOLLOWING TOTAL EXTIRPATION OF
THE PROSTATE AND RESECTION OF THE BLAD-
DER FOR MALIGNANT DISEASE.¹

By EUGENE FULLER, M.D.,

Professor of Genito-Urinary and Venereal Surgery, New York Post-Graduate
Medical School and Hospital; Visiting Genito-Urinary Surgeon to
the City Hospital, New York.

MALIGNANT disease of the prostate is generally considered to be an affection beyond the realm of direct surgical attack. In passing over the subject most modern authors state that although on a number of occasions attempts to radically extirpate the disease have been made, yet the results have been so bad or indifferent as to hardly warrant further efforts in that direction. The course of treatment ordinarily laid down is to do practically nothing until the disease blocks the vesical outlet, and then to perform suprapubic cystotomy, establish a permanent suprapubic-urinary fistula and await the time until the disease by its further encroachments causes death, which usually takes place through a blocking of the ureters or bowel, through sepsis or through the involvement by metastasis of important structures, especially the liver.

¹Read at the May, 1898, meeting of the American Association of Genito-Urinary Surgeons.

There is no doubt but that radical surgical interference is contra-indicated if the disease has become extensive enough to involve the rectal wall, the post-peritoneal lymphatics, the seminal vesicles, and the posterior bladder wall beyond the trigonum. If, however, such is not the case, then I hold the attempt should be made to remove the structures which are the seat of disease, unless perhaps the subject be a child, for in children malignancy in this region is so rapid in its progress that no radical operation is liable to more than very temporarily stay its progress.

I base my opinion largely on the result obtained in a single instance, although at the present time I have a second case which has just passed the convalescent stage after operation, which although not as typical as the first still strikingly illustrates the advantage to be gained by radical surgery.

The literature on the subject is not extensive. Kuchler, Billroth, Demarquay, Spanton, and Harrison are the pioneer operators in this particular. Harrison made an ineffectual attempt to remove the diseased prostate through the medium of a perineal cystotomy, while the others employed the suprapubic route. Leisrück removed the growth in one instance through a rectal incision. His patient died thirteen days afterward. Stein performed the operation on two cases through the aid of a suprapubic incision. One died promptly, and one lived about nine months, although in this latter case the vesical function was not restored, a suprapubic vesical fistula being maintained. Küster extirpated the bladder as well as the prostate, but his patient promptly died. Verhoogen (*Centralblatt für die Krankheiten der Harn-und Sexual Organe*, Band ix, Heft 1), has recorded a successful case. His patient, a man of 53 years, presented himself with a tumor confined wholly to the prostate, which proved to be a myxosarcoma. This was removed by means of a perineal incision without opening the bladder or the rectum. The patient died nine months after from a recurrence of the disease. My clinical experience in this direction is as follows:

A gentleman, 69 years of age, consulted me in February, 1897, his complaint being a frequent and urgent desire to urinate, the act being performed at intervals of every hour by night and of every ten minutes by day. Not infrequently considerable blood dripped from the meatus at the termination of the act of micturition, which was also associated with much tenesmus. He had first noticed symptoms of urinary frequency about eight months before. It had then been found that considerable residual urine existed, and the occasional introduction of a catheter had for a time given him relief. For a few

months, however, before consulting me he had obtained little relief from the catheter, the introduction of which had become somewhat difficult and productive of an increase in the bleeding. Examination by the rectum showed marked enlargement of the prostate. The enlargement was firm, smooth, and regular in the outline and had all the characteristics to the touch of senile hypertrophy. The rectal wall was not in the least adherent to the prostatic tumefaction. In other respects nothing abnormal was disclosed by rectal exploration. The urine showed no evidence of renal disease. No cystoscopic examination was feasible owing to the bleeding which the passage of the instrument would provoke. The patient's general condition was fair. I determined to attack the prostatic tumefaction by way of the suprapubic route. Previous to opening the bladder I thought it likely that I had to deal with a condition of simple senile hypertrophy of the prostate, although the repeated bleeding in connection with micturition was a symptom against such hypothesis. On opening the bladder, however, I found the vesical wall to be involved with the prostate by a hard infiltrating growth. It was evident that the prostate was the original seat of disease. The bladder wall involved was chiefly the lower portion lying directly over the prostate. The wall posterior to this was normal to the feel. The infiltration had, however, extended upward so that the anterior wall to either side of the urethral outlet was somewhat infiltrated. I determined to remove the involved bladder wall and the prostate. Accordingly with a serrated pair of scissors, such as I use in prostatic operations, a more or less circular incision was made through the vesical wall. The circumscribed part included the involved area and the area about the urethral opening. With the forefinger I then gradually dissected up the circumscribed vesical wall and the adherent prostatic body. Great care had to be taken in doing this not to tear the rectum. The prostatic urethra at its commencement had to be cut across. In extracting the mass, which came away in several pieces, I accidentally tore the vesical wall from the anterior margin of the wound up to the lower margin of the suprapubic vesical incision so that the under surface of the pubic bone could be felt by the finger introduced through the suprapubic incision, there being, as it were, no anterior vesical wall. A perineal incision for dependent drainage was then made. The vesical wall about the suprapubic incision was securely fastened to the abdominal wall, a free space for suprapubic vesical drainage being left. Several silkworm-gut sutures served to close the upper portion of the abdominal incision. The bleeding, which was quite free, was largely checked by hot vesical lavage. No

attempt was made to draw into apposition the bladder wall so as to close the space previously occupied by diseased tissue. The rent in the anterior vesical wall was also not closed by suture. I, of course, recognized that there would be danger of urinary extravasation into the perivesical pelvic structures, owing to the fact that the vesical space from which the diseased tissue was removed, and also the vesical rent were left unsutured. To do such suturing, however, an extensive transverse suprapubic incision through the abdominal wall would have been necessary in order to provide sufficient space for manipulation. I did not think that my elderly patient would have survived that extra amount of operating, together with the prolongation of the administration of the anesthetic, which it would have necessitated. To prevent such extravasation I depended with success on suprapubic, combined with perineal, vesical drainage, which was so free that the bladder remained at perfect rest during the formation of a firm barrier of granulations. The case bled rather freely for several days. The intravesical injection of peroxid of hydrogen of full officinal strength had, however, a very beneficial effect not only in ridding the vesical cavity of blood-clot but also in stopping the flow of blood. The patient convalesced uneventfully, and left the hospital at the end of a month, still wearing a suprapubic drainage tube, the perineal wound having healed. A sound entered the bladder perfectly well and showed no obstruction. Owing to the removal of vesical wall about the urethral orifice I feared that an obstructing cicatrix might form; but such did not. About a month after being discharged from the hospital the suprapubic tube was removed, and its fistula soon closed. With the closure of the fistula normal urination returned. After leaving the hospital the patient was cared for by his regular attending physician, Dr. Bogart of Roslyn, Long Island, until his death, which occurred over eleven months after the operation. The doctor reported to me that after the suprapubic wound closed urination was free and without subjective symptoms other than that it was somewhat more frequent than normal, due apparently to the fact that the vesical capacity was lessened owing to the removal of a portion of its structure. The urine was clear and there was no cystitis. About two months before the patient died a tumefaction occurred in the space of Retzius, which could be demonstrated by abdominal palpation—an evident recurrence of the disease. This was followed by a re-opening of the suprapubic vesical fistula. Up to the last, however, Dr. Bogart could find no evidence of a recurrence in the prostatic region or about the vesical neck, a soft catheter passing into the bladder easily and without encountering

any obstruction, and up to the time of death also the patient passed some urine by the urethra, although, of course, after the re-opening of the suprapubic wound most of it naturally found vent in that direction. The following is Dr. H. T. Brooks histological report: "The tissue which you removed from the prostate is chiefly composed of sarcomatous elements of the large, round and spindle-celled type, though certain small areas show the arrangement of carcinoma. From these findings I am inclined to believe the growth should be classed as a mixed tumor—best expressed by the term sarcoma-carcinomatodes."

In this instance the operation was certainly a success, as it gave the patient a goodly number of months of comfortable and prolonged existence. The fact that the disease never recurred in the prostatic region or about the vesical neck is of much interest, as it goes to show that had the operation been undertaken earlier, before the extensive invasion of the vesical wall had taken place, it would have been of much more lasting benefit. It also illustrates the fact that extensive extraperitoneal vesical repair may take place without extravescical extravasation, and without bringing the edges of the vesical wound into apposition by sutures, provided extremely free drainage be maintained.

The other case which I will mention could not be treated as radically as the preceding one, owing to the extent to which the disease had progressed before coming to my notice. He was 31 years old, and very anemic from loss of blood which escaped with the urine. Urination was frequent, and latterly marked evidences of obstruction had developed in connection with the act. On several occasions clots of blood had passed from the urethra. Rectal exploration showed a marked hard tumefaction of the prostate the size of a lemon, involving especially the left side. The post-prostatic structures were somewhat infiltrated and the rectal wall in places was to an extent adherent to the prostatic tumefaction. As the bladder had not as yet been infected by instrumentation I did not consider it advisable to tamper with it in the hope of making my diagnosis more exact. I advised the establishment without delay of suprapubic vesical drainage in order to check the constant and serious hemorrhage, and to anticipate a condition of vesical retention which was threatening. Through the evidence derived from the rectal investigation I did not expect to be able to do a radical operation. The patient's symptoms had begun between seven and eight months previous to his consulting me. On performing suprapubic cystotomy I found the anterior half of the bladder infiltrated, while a mass the

size of an orange bulged into the vesical cavity. The upper portion of this mass was penetrated by the outlet to the urethra. Whether the bulging tumefaction originated from the vesical wall or the prostate it was impossible definitely to determine; still from the fact that the periphery of its base corresponded closely to that of the prostate, together with the evidence derived from the rectal feel, makes me suspect that the prostate was the part primarily involved. The intravesical tumefaction was soft, somewhat brittle to the touch, and bled freely on manipulation. I felt as a result of former experience, that if this tumor were left its surface would rapidly ulcerate, and that the vesical contents would become foul and putrid in spite of antiseptic lavage, thus causing the patient much discomfort. Accordingly with prostatectomy forceps I removed it piece by piece, and then with a Volkmann spoon scraped away much of the diseased prostate. The suprapubic wound was then arranged for the formation of a permanent fistula. The urine after the operation continued for about three weeks wholly free from blood and odorless. Besides this the patient was rendered perfectly comfortable. Now at the end of five weeks the patient is about and ready to leave the hospital. There is evidence, however, that the vesical growth is beginning to return and that it is rapidly involving the extravescical pelvic structures. Owing to the precociousness of this growth, which microscopical examination showed to be carcinomatous, the patient will not probably live more than a few months longer. At the end of four months he was still comfortable. Some might consider, owing to the probable rapidly fatal termination of this case, that the establishment of a suprapubic fistula would have answered as well as the more radical operation which I performed. I feel certain, however, that the patient would in that case either have succumbed earlier to septic absorption through the neoplasm or have been greatly debilitated thereby. At any rate his suffering due to the ulcerating vesical growth would have been intense.

Society Transactions.

NEW YORK ACADEMY OF MEDICINE.

SECTION ON GENITO-URINARY SURGERY, STATED MEETING, HELD ON TUESDAY EVENING, NOVEMBER 8TH, 1898, AT 8.15 O'CLOCK.

DR. R. H. GREENE, *Chairman*.

A Case of Epispadias.—Presented by DR. SWINBURNE for DR. ALEXANDER.

The case presented was a typical case of epispadias, there was almost complete absence of the corpora cavernosa, the urethra was replaced by a groove running the entire length of the penis and ending in a blind pouch in the glans, the real meatus opened by a wide mouth at the symphysis. There was a separation of the pubes at the symphysis of about 1 cm. The testes were in the inguinal canal on each side. This was practically complete incontinence, yet the urine was perfectly sweet and aseptic.

A Case of Complete Amputation of the Penis.—Presented by DR. SWINBURNE for Dr. Alexander.¹

The case was that of a man 45 years old, who presented a marked ulceration of the glans and body of the penis. Operation at Bellevue Hospital. The operation consisted in splitting the scrotum at the raphé, freeing the urethra, cutting it through, and bringing the proximal end through the perineum and suturing it there, the entire removal of penis and the corpora cavernosa from the pubes, suturing each testis into its own half of the scrotum, suturing the wound and inserting a drain at the pubes. Patient made a complete recovery. The case was at first regarded as epithelioma but in view of its appearance and history it seems more likely to be tubercular. The pathological report has not yet been made. The patient urinates satisfactorily through the perineal meatus.

A Case of Inguinal Adenitis.—Presented by DR. RAMON GUIERAS.

The patient was an Italian, 26 years old, a gardener. Gives no venereal history. Five years ago in Italy had malaria, afterward had enlarged spleen. Never well since then. About three months ago he noticed a swelling in his right iliac region. Ten days later another swelling developed in his right groin. He continued his work, but after a few weeks the swelling became so painful that he was advised to come to the hospital. When he entered the hospital, on examination, he had a swelling resembling an ordinary adenitis or bubo below Poupart's ligament on the right side. Above Poupart's ligament, in the iliac region, on the same side, was a swelling about two and a half inches long and one and a half inches wide, the lower part of which was exactly beneath the inguinal canal. The external genitals were normal; the right extremity was normal; no lesions upon it, neither were there any upon the abdomen, the perineum or about the anus. The urine was normal; the lymphatic glands in the other groin and the post-auricular and epitrochlear regions were all enlarged. His blood on examination showed anemia. Now it was a question what this trouble was. In the first place an incarcerated hernia had to be considered; secondly, a tumor of the cord in the inguinal canal. Then the

Will be published.¹

question of a chronic appendicitis came up. This tumor was a little below the region of the appendix, but sometimes in appendicitis, the tumor is lower than the point generally described. Then of course the question of psoas abscess and iliac abscess had to be considered; but the swelling below Poupart's ligament pointed to the probability that it had some connection with that above, so it was decided to operate upon this point and afterward to explore the region above. An incision was made below Poupart's ligament in the line of the femoral vessels and a mass of enlarged glands was extirpated about two and a half inches long by one and a half wide. These extended down beneath the fascia lata along the great vessels into the femoral canal. Then incision was made over Poupart's ligament, the inguinal canal opened and explored. There was no tumor or hernia in the canal. The cord was normal, but just beneath the floor of the canal the tumor could be quite distinctly felt just behind the transversalis fascia and the peritoneum. It appeared to be probably an extension of the inflammation along the lymphatic ducts to the glands about the iliac vessels, so the tissues over the inguinal canal were sutured and also the incision below the femoral vessels, both of which healed by first intention. The patient was kept in bed for some time and the tumor gradually diminished in size. There is still some swelling there but it is very much smaller than it was. When the patient entered the hospital he had a temperature ranging from 99 to 102° F. and his pulse ranged from 76 to 98. As soon as the operation was over this temperature fell to normal. He has been on tonic treatment since then and has now been up and about for a month. It is a very interesting case because a tumor above Poupart's ligament in this region is rather rare if it occurs in connection with the lymphatic glands—an adenitis, as we had every reason to suppose it was. The report of the pathologist on the glands taken out in the groin was that of "acute adenitis."

DISCUSSION ON THE AMPUTATION OF THE PENIS.

DR. CHETWOOD asked if there was any tubercular history.

DR. SWINBURNE said no family history had been given, but that the nature of the previous illness of the testis pointed to tuberculosis.

DR. CHETWOOD said the question was asked because he was inclined to doubt the diagnosis of tubercular disease and was inclined to consider it malignant and would wait with interest to hear the report of the pathologist.

DR. DAWBARN said that rather than let so interesting a case be passed over without any comment at all he would say a word or two. A little better result might, it would seem, have been accomplished if, instead of splitting the scrotum into halves, making an incision, which, of course, would be some time in healing and which might make trouble afterward, the gentleman had adopted the Hilton-Roser method, *i.e.*, using the dressing-forceps and stretching a passage for the urethra to be brought out at, behind the scrotum. A soft catheter should, however, first be passed, and this with the urethra brought out, as just suggested. The catheter could not so easily be passed later; that is, after the urethra had been transplanted.

DISCUSSION ON THE CASE OF INGUINAL ADENITIS.

DR. KLOTZ asked what was the condition of the removed glands.

DR. GUITERAS said that the pathologist reported simple adenitis.

DR. KLOTZ asked if there was any suppuration.

DR. GUITERAS replied that there was no suppuration.

DR. KLOTZ said it was possible and probable that malaria was the cause of all this swelling. It was not unusual to find such the case. He had seen the condition.

DR. GUITERAS was glad to hear the opinion of Dr. Klotz that these glands or enlargements are often due to malaria. He did not know what the cause was in this case. There was no venereal history, and no history of any lesion or traumatism of the extremity or of the lower abdomen or the perineum, and he could not account for it.

A Specimen of a Vesical Calculus, with Hairpin Nucleus Removed with a Lithotrite.—Presented by DR. SWINBURNE for Dr. Alexander.

The patient was a girl 17 years old who had had symptoms of stone for three months previous to the operation. The case was examined with the fluoroscope and the hairpin seen in situ before the operation.

Contributing Factors in Hematuria.—Presented by DR. W. K. OTIS.

Every hemorrhage of the urinary apparatus results from extravasation of the blood, either as a whole, or of blood-corpuscles or of blood-pigment alone. It is found by increased blood-pressure, changes in the vessels or both.

The most frequent causes of hematuria are those directly due to stone, including gravel and acid crystals, tumors, tuberculosis and inflammatory conditions, cystitis and nephritis.

Stone in the bladder causes hemorrhage: (1) by direct injury to the mucous membrane, (2) by the *presence* of the stone which produces a chronic congestion of the mucous membrane, which may cause profuse and intractable bleeding. Stone in the kidney causes hematuria either by its passage through the ureter or its retention in the pelvis. Even sand, especially crystals of oxalate of lime, may cause bleeding by direct injury of the mucous membrane. This bleeding may be the first symptom of an attack preceding the pains, and patients who have had previous attacks recognize this as a precursor of renal colic. Usually the bleeding does not occur until the gravel has passed into the bladder and the hematuria is usually of short duration. When the stone is too large to pass and remains in the pelvis, it may wound the mucous membrane and cause more or less bleeding, further its presence causes a *congestion* which tends to increase hemorrhage. Jolting and exercise may increase this, though even during prolonged rest hemorrhage may occur, probably due to congestion. Again there may be no hemorrhage on exercise, probably because the stone may be immovable.

Vesical tumors may cause hemorrhage even when benign, due to the presence of a foreign body; when malignant, due to ulceration. Renal hemorrhage from a neoplasm may begin spontaneously, uninfluenced by movements and cease without apparent cause. It is apt to be abundant and clots form in the bladder.

Hemorrhage due to tuberculous disease may occur, diagnosis to be made by search for bacillus, presence of other foci, or by injection of tuberculin Koch.

Renal hematuria without known lesion has been reported. The reader is inclined to doubt the existence of hemorrhage without there being some kind of lesion present.

That hematuria is capricious, appearing at long or short intervals while the same lesions presumably exist, the stone is still present, suggests the presence of some other contributing factor. Congestion seems to explain this factor, and in some instances may be directly proven.

DISCUSSION.

DR. KLOTZ mentioned a case of an old gentleman of 70 occurring about a year ago, who had a severe hemorrhage of the bladder, and on opening the bladder nothing was found but a bleeding vein. It is not out of place to think of such a possibility as this.

DR. ALLEN said he had nothing to say which would add to the value of the paper. He was very glad to hear the suggestion of congestion as the cause of obscure hematuria. Certainly instances of hematuria are occasionally met with in which the clinical symptoms do not correspond to the usual causes, which are well known. There are some cases which are puzzling; some with absolutely no history of pain or of conditions which would lead us to think that stone or other recognized causes were present.

DR. PEDERSEN: The mention Dr. Otis made of the irregularity noticed in the occurrence of the blood in cases of hematuria recalled to his mind one case in which the following curious fact was noticed: The patient had more hematuria after he had been lying down than when up and moving about. The diagnosis in this patient's case was that of recurring attacks of crystals in the urine, with the probability of a renal calculus—possibly a large calculus such as Dr. Otis alluded to, filling the pelvis and the calices so that in moving about the patient did not suffer much from the motion of the stone in the kidney. That was the diagnosis, and the cystoscope showed that the hemorrhage came from the right ureter. This corresponded to the side upon which the patient would have sensations of discomfort and sometimes pain, whenever he would have one of these attacks of hematuria. He asked if, in closing the discussion, Dr. Otis would allude to that point again and give some clue, if possible, as to why that patient had more hemorrhage during his sleeping hours than at other times.

DR. GREENE said he thought it was a very interesting paper and they were all grateful to Dr. Otis for having contributed it. He believed thoroughly in what Dr. Otis said about congestion being one of the contributing factors causing the hemorrhage. He said he had had a case of hematuria reported by him the cause of which was so extremely rare he thought he would be pardoned for speaking about it. A man came to him with a history of hematuria, which proved to be from the left kidney. This hematuria came on some year or so previous, the attacks occurring at intervals of from a month to six weeks, increasing in frequency till hardly a day passed without his having more or less of the hemorrhage. He had lost some 35 or 40 pounds in weight. He gave up his business and thought that his end had come. The diagnosis of stone in the kidney had been made by one of the most celebrated diagnosticians in this country and an operation had been performed by a very able surgeon on the left kidney and no stone had been found. The pelvis of the kidney had been scraped out and microscopical examination of the pelvis of the kidney gave rise to the supposition, but not the positive expression, by the pathologist of malignant disease of the kidney. The removal of the kidney had been advised. In going over his history it was found that the man had had syphilis, a fact which had been overlooked by his previous medical advisers. The man himself was unaware he had the disease. He was put on a course of mercurial inunctions, with the result that after two weeks of daily inunctions the hemorrhages ceased; when they ceased the treatment was stopped and the hemorrhages returned in about a month. Mercurial inunctions were resumed and the hemorrhages ceased and practically never returned since. The probable diagnosis of gumma of the left kidney was made. In looking over the literature of the subject we find two cases on record by Israel in Germany. In these two cases he had made a diagnosis of malignant dis-

ease of the kidney in each case and had removed the kidney, and having removed the kidney in these two cases he found gumma of the organ to be present. This case has taught the speaker that syphilis may be looked for as one of the contributing causes of hematuria, especially when we are at a loss for a cause.

DR. OTIS said that when we consider the profuse blood-supply of the genito-urinary tract and its method of distribution, it is not at all surprising that congestion should play an important part in the production of these hemorrhages. It is not necessary that there should be an important lesion to produce profuse hematuria, which may be derived from the capillaries alone. When we consider the remarkable behavior of many of these hemorrhages, attacks of profuse bleeding, which may come on suddenly in the most perfect health, lasting a longer or shorter time, to return at the most irregular intervals, months and even years elapsing between the attacks. Rest is frequently without influence on their disappearance. On the contrary they are often most profuse during the night. How can we explain these sudden disappearances and returns, if not due to an influence which can be transitory or prolonged, can occur or cease, suspend its effects or accumulate them? What can produce these curious forms of hematuria unless they are due to the effects of congestion? It would be necessary in order to render the mechanism intelligible without the action of congestion to prove that an important vascular branch had been injured; that an ulceration had occurred; that all of a sudden it had healed, then to re-open, even after long months, or years in certain cases.

It can also be demonstrated by means of the cystoscope that during these periods of activity the bladder is congested, and that during periods when bleeding is absent the mucous membrane will appear pale and anemic.

DR. CHETWOOD in responding to Dr. Pederson's question raised by him in relation to his patient, in whom it was stated that the hematuria occurred during rest and not during exercise, said that the accumulation of oxylate-of-lime crystals in the urine and in the kidney is believed to be a not infrequent cause of hematuria. In fact he had come in contact with cases in which it seemed to be the only assignable cause. It is generally customary in trying to make a diagnosis where stone in the kidney is suspected to direct the patient to take some violent exercise in the form of a horseback ride or ride in a car or in a carriage over the stones, the effects of which, if there be stone in the kidney, is to accentuate the symptoms and increase the hematuria. In the case of oxyluria, however, active and regular exercise is one of the means of getting rid of oxylate-of-lime crystals and a potent factor in getting them in circulation again. A possible explanation of hemorrhage from the kidney during the period of rest might be that the oxylate of lime accumulate in larger quantities than when a free amount of exercise is practised.

The Hypodermatic Use of Mercury in Syphilis.—Read by DR. S. S. JONES.

He desired to present a few practical observations based upon personal experience in private practice and to give the results of his endeavor to rid the method of its most objectionable feature, namely, its tendency to occasion pain, inconvenience, and even great suffering.

A glance at the literature serves to show that the method has few advocates, certainly as a routine procedure, and he quotes several authorities.

He had been inclined to look unfavorably upon the method from considerations of pain and annoyance until he came to face the necessity for its use in a critical case of brain syphilis, which led him to seek some method for lessening its disadvantages.

The patient, who had had his initial lesion four years before, had been under careful observation, was suddenly seized with a convulsion, followed by a motor aphasia, right-arm palsy, and right hemi-anesthesia, pointing to a cortical lesion. Under vigorous mercurial inunctions the patient became able to swallow iodids, became partially conscious and able to speak, but was restless, irrational, and evidently suffering great pain in frontal and occipital organs, and the cervical spine with stiffness of cervical muscles. As the course of treatment was evidently beginning to show signs of failure, he resorted to the hypodermatic use of mercury, making in forty-eight hours four injections, each $\frac{1}{2}$ grain of bichlorid; after this, co-incident with a severe but brief enteritis, improvement set in. When the patient became more rational and more sensitive to pain it became increasingly difficult to administer the injections. Therefore, the reader began to seek for some method of overcoming the objections. The addition of cocain rendered the solution of bichlorid and salt turbid, and did not stop the pain. However, he found that on heating the solution to the boiling-point it became clear, and if injected while still hot, before becoming turbid, there was generally no pain and seldom any swelling, though we are told that cocain is destroyed by boiling.

For convenience in use, the reader had had a tablet made containing bichlorid and sodium chlorid, aa. $\frac{1}{4}$ grain, cocain 1-16 grain, which he found could be readily serviceable and at hand. One patient had used this tablet, while absent from the city, administering it himself without ill result.

The reader believes the method superior to others (1) where danger threatens organs whose functions are vital or important, as lesions of brain, heart, eye, or ear.

2. In ulcerations resembling tubercular or malignant disease, especially of the tongue.

3. In those cases where other methods are not tolerated or when time is valuable.

The injection should be made into muscle, the needle washed after charging syringe. The reader, however, has found it not always possible to inject into muscle, and has found no ill results from injection into the subcutaneous cellular tissue. He believes the most eligible sites to be in the cellular or muscular tissue between the scapulæ and the iliac crests.

DISCUSSION.

DR. ALLEN said he was very glad to hear Dr. Jones' paper, although the matter was not entirely new to him because the doctor had told him some time ago what he was doing in this connection. He himself had never used the combination with cocain because he had hardly felt the necessity for it, and had rather doubted that it would prevent pain. The injection of bichlorid of mercury occasionally gives pain—sometimes quite severe pain at the time of the injection. On the other hand many injections are devoid of pain. Sometimes it gives rise to alarming symptoms. In one instance a very strong, powerful man almost fainted, turned deathly pale, and experienced marked oppression of the chest. The symptoms were so severe he surmised that some of the injection at least had penetrated a vein.

He said that the whole question of injections of soluble and insoluble preparations of mercury was interesting from many standpoints. He began, he thought, in 1892 to use the albuminate of mercury but soon gave it up. At the City Hospital, where he had ten-years' service, he used benzoate and salicylate but was never very favorably impressed with them

and did not get results which warranted him in pursuing with them. He never, he said, believed in calomel injections, and thought still less of them to-day. He did not believe he would ever give another. He thought the mere fact of the possibility of death from embolism, of which we have reports so frequently, especially from France—and there must be very many cases not reported—should deter one. The great danger from that one point alone, without considering the other disadvantages, he thought should make one give up the use of calomel. Still he knew many who used it and who swore by it. He has a friend who says he very frequently produces abscesses on his patients and thinks the results are better because of them. If his patients will stand it, all right. His own would not. Since he had used bichlorid he had had but three abscesses. Two occurred in the same patient, in the interscapular region, where the injections were made by a gentleman who had assisted him in his temporary absence. This gentleman did what Dr. Jones had said to-night could be done, put the solution into the cellular tissue. Dr. Allen said he attributed the bad effects to the fact that they had not been put deep into the muscle. The same precautions were used as he himself had been in the habit of carrying out in the preparation of the skin, by washing with alcohol, ether, and antiseptics, and taking all possible means to ward off the danger of introducing germs along with the injection.

In the third case, a strong man, the injection was made in the buttock and the injections gave rise to swellings, one of which broke down and made a troublesome abscess, which took a long time to heal.

The doctor said that in looking over his book at the dispensary yesterday, in view of this discussion to-night, he had found twenty-nine cases in which the injections were recorded as having been used since last January. This probably did not represent all the cases of syphilis treated in that way, because oftentimes one neglects to put the treatment down in his notes. He had used the method extensively in private practice and had the records of a number of instances in which marked benefit resulted. He must, therefore, put himself on record as being highly in favor of the intramuscular injection of bichlorid in combination with sodium chlorid.

Not to take up too much time, he would like to call attention to such instances as he had in mind in which the patient would come to the office having taken the proto-iodid pills or other forms of mercury internally until he was in a deplorable condition—insomnia, stomach upset, tongue foul, headache, enteritis, etc. Stopping the internal treatment at once and putting the man on full doses hypodermatically, in spite even of slight salivation, giving him half a grain of bichlorid within the muscle, without any other treatment for the diarrhea or other manifestations, would within twenty-four hours at times so relieve the symptoms that he would come back pleased at the result and say the injection had done him a wonderful amount of good. He had in many instances the patients own words in his history records to show how beneficial injections could be under those circumstances.

He said that Dr. Jones had spoken of brain and spinal cord syphilis. He had had in two instances remarkable success with the injections in such cases. He could not speak too highly of them where vital organs were affected, and where in all probability the absorbing organs, the digestive organs, were not in a condition to make the best use of mercury given by the mouth. He thought it was a very interesting subject. He could say a great deal about it if time permitted, but he should like to thank Dr. Jones for his recommendations and that he would try them.

Dispensary patients, as a rule, say there is but slight pain and some do

not complain at all. He did not tell them it was going to hurt, and when they came back the next time he asked if the last injection pained and they said no. This fact would interfere with just estimates of benefit derived from combinations with cocain, but as in many the injections are extremely painful at times he should give Dr. Jones' plan a trial.

DR. LAPOWSKI said that the question of injections was a very interesting one. In this country Dr. Klotz can be regarded as one of the warmest advocates of insoluble solutions, and he was very glad Dr. Klotz was present, as he might favor us with some explanations regarding two very interesting points mentioned in his last paper. Dr. Jones said the injections of sublimate administered by him did not pain. Even granting that, there *are* a good many other objections which will compel the physician to think twice before he uses injections, especially in cases where he may help himself in other ways. Soluble injections like sublimate given in small amount mostly produce pain. Even adding morphin or cocain we cannot be sure that pain will not be present, as pain mostly occurs after the action of morphin or cocain is over. In his experience in the hospital they used cocain in the same way as Dr. Jones, boiling the solution of cocain and injecting a warm solution. If we have patients like Dr. Allen's there may be no pain, but if you apply the same injection to a woman who is a little nervous she will complain of pain. That is a question which cannot be decided before the application of an injection. Very few physicians advocate the use of hypodermatic injections of mercury. There are a good many reasons for it. I will only allude to two, which are seldom mentioned in the text-books: (1) Sometimes in spite of the most stringent precautions taken, symptoms of embolism will occur. In such cases Dr. Lapowski said he was inclined to ascribe the occurrence of the embolism either to a varicose condition of the deep-seated veins, which may be present without any corresponding visible changes in the veins of the lower extremities, or to a syphilitic phlebitis.

The second objection is hemorrhagic syphilis, in which he would never use hypodermic injections. Clinicians differ in their opinion whether hypodermic injection of mercury, or mercury in any other form is to be administered, when the kidneys are affected. While in kidney diseases due to syphilis, mercury often does a good service, it is injurious for a kidney if the disease is due to other changes and we have no sure differentiating symptoms which will help us to determine the nature of the affection when we are in doubt as to its nature.

Regarding the question of using sublimate injections for the purpose of establishing a diagnosis, or for bringing a quick relief to a patient with brain syphilis, he would prefer to give the preference to calomel, although the patient may be exposed to salivation—and here comes the point of Dr. Klotz, who reports two cases of salivation after injection of mercury. The two patients at the same time suffered with tonsillitis. He gave a very ingenious explanation of the occurrence of salivation: It was probably due to the accumulation of blood in the inflamed tonsils and the passage of more mercury in that locality.

As to occurrence of abscesses, Professor Tarnowsky states that he administered 176,000 injections of salicylate of mercury with only twelve abscesses.

The next point mentioned in Dr. Klotz's paper, is raised by two cases of embolism after calomel injections. He states that no lumps were present in the buttocks. That is an extraordinary experience and he would be indebted for more details regarding the two cases.

He said that Dr. Allen had remarked that he stopped an attack of saliva-

tion due to protoiodid taken internally by a hypodermatic injection of sublimate. It is a very risky thing to do. We can, with difficulty control an attack of salivation, and we will surely not stop an attack due to the presence of mercury in the system by injecting more mercury into the same system.

DR. KLOTZ said he had had some experience—he might say considerable experience—with injections of soluble and insoluble preparations of mercury. There were two different methods which ought to be considered separately. The objections raised against the insoluble injections have been much more energetic and frequent than against the soluble ones. He had used injections of bichlorid and a good deal of the biniodid of mercury for over twenty years, formerly more in private practice, but lately more in hospital practice, and had been satisfied with the results. The desire to have a way of administering mercury to the patients other than internal applications had always been a strong one with him, particularly as he had never considered inunctions made by the patient while regularly attending to his business as a sufficiently reliable method.

As far as the soluble injections were concerned, there was hardly any danger connected with them. He knew of only one case where more serious symptoms followed the first injection of corrosive sublimate—a severe enteritis with hemorrhages, which lasted for several days. It occurred in the practice of a physician formerly of this city, and must be considered as an idiosyncrasy. Dr. Klotz said he himself had not used any cocain, but he had found that the injections invariably cause a certain amount of pain for half an hour or even for two or three hours. The principal objection to soluble injections is that they have to be made so frequently—in fact almost every day. The bichlorid he had always found useful in the early stage of syphilis, but not in the later ones. He would not rely on it in a case of syphilis of the brain or of any other of the important organs. The biniodid was very much more effective even in later and tertiary forms.

He said he did not wish to say much now in regard to the insoluble injections. He had given a report on his experience, which at that time extended over a little more than 200 injections in 1889, in a paper which had been published in the *JOURNAL OF CUTANEOUS AND GENITO-URINARY DISEASES* for 1890. What he had then stated he maintained now with even more emphasis, as his experience was based on nearly 1100 injections, on more than 100 patients in private practice. He hoped soon to find time to work up the subject and to present it more fully at some future time; therefore, he would refrain now from going more into the question. The paper mentioned distinctly explained the method of application, the good and the bad effects. He only wanted now to answer the questions put by Dr. Lapowski: First, that on the effect of the action on the kidneys. He had watched the urine very carefully during insoluble injections. He remembered only one case where he unexpectedly found albumen in a strong, healthy patient. He stopped the injection. The albumen disappeared, but after a while appeared again, evidently after the patient had exercised very freely on the bicycle. He then resumed the injections of the salicylate of mercury, which he preferred for common use, and the albumen did not appear again.

As far as the salivation was concerned it was not infrequent during injections of the soluble salts; but except in the one case mentioned by Dr. Lapowski he had not seen any salivation whenever he used the salicylate of mercury. It was different, however, with calomel. In the two cases mentioned by Dr. Lapowski only one did occur after injections of the

salicylate of mercury—in fact after the second one; the other occurred after five inunctions of mercurial ointment. In both cases the treatment was resumed after the salivation had disappeared. The one patient got about fifteen or twenty inunctions, and the other about half a dozen or more injections of salicylate without any further trouble from salivation. The absence of nodes after calomel injections he was far from denying. The cases where there was absolutely nothing to be felt at the point of injection were those of embolism of the lung. His experience with embolism of the lungs was reported in the paper mentioned by Dr. Lapowski. This embolism was by far the most unpleasant experience occurring with insoluble injections, but all of his cases recovered without any serious consequences within several days.

The last point to refer to is abscesses. They do not often occur after soluble injections, but he had seen occasionally small patches of gangrene of the cutis in cases where he had not made the injection himself. They will invariably occur when some of the fluid is injected within the tissue of the cutis itself. He thought it had been the experience of almost every man who used insoluble preparations to get a few abscesses in the beginning of their practice. He himself had seen two or three at first. They did not amount to much either, but since then, even before the time he made his report in 1889 he had not had an abscess. In fact he could conscientiously say that he had not seen one for the last ten years. He did not use any extra antiseptic measures. He cleaned his syringes with hot water, then with alcohol, and thereupon again with hot water and wiped them dry.

DR. MASON said in reference to the injections that he had used a good many of them, fifteen drops of the mass to the dram of water, and deep; then one may grasp the point where the injection has been introduced and massage it, gently first. The idea is to diffuse the liquid as rapidly as possible and the pain is very much diminished by that process—thoroughly rubbing it after first grasping it.

DR. CHETWOOD said he only wished to add to what had already been said, a few words relative to the experience of Dr. Keyes in the use of hypodermics of mercury. Dr. Keyes was a believer in the hypodermatic use of mercury, although he did not rely upon them as a routine method. Calomel was not favored on account of its tendency to produce abscess. Bichlorid of mercury had not proved satisfactory and was decidedly irritating. For the last five to ten years he had used the preparation which he still used at the present time with increasing satisfaction—salicylate of mercury. This is employed in a mixture composed of liquid benzoinol as a vehicle. It mixes very readily and is prepared in the proportion of three grains to the dram, of which 30 minims, or 1 1-2 grains of mercury is the ordinary dose. This is repeated once a week, once in two weeks ordinarily, or even twice a week and three times a week where the urgency of the case demanded it.

In regard to the amount of pain produced it was relatively very slight, and less than with any other preparation of mercury employed.

In regard to the production of abscess, he had been using it for seven years and had never known one to occur. In the case of hyperæsthetic or nervous women, where it had produced a certain amount of pain, he had had recourse to hot fomentations of water immediately after the injections with the effect of greatly allaying the pain.

In regard to the production of embolus, he had never known it to occur, nor had Dr. Keyes. This particular preparation of the salicylate of mercury they had used with success, and were using it still with increased satisfaction.

DR. DAWBARN said he regretted that time did not permit a fuller discussion of this most interesting subject. He, too, had observed the precipitation of the cocain by the bichlorid solution; and consequently had tried *first* injecting cocain, and when the tissues were anesthetic *then* injecting the mercuric solution. The latter is placed as deeply as possible—well into the muscle—the discomfort is but trifling when the cocain effect wears off and the mercury remains.

Dr. Dawbarn said he was a little surprised that Dr. Jones, who had mentioned so many methods of using mercury by the needle, had omitted to allude to the hydrargyrum oxydulatum tannicum, so strongly recommended for this purpose by the famous Kaposi, who uses it in a menstruum of light paraffin, and claims it causes almost no pain.

DR. JONES said he wished to apologize for the incompleteness of his paper. On account of its brevity, it was not possible for him to enter at length into the literature of the subject, which was very large.

With reference to the use of calomel, it seemed to him that in addition to its greater liability to produce abscess and thrombosis, calomel, on account of its slow absorption, had other disadvantages and dangers. Authorities were pretty much agreed that the interstitial use of the bichlorid need not be more frequent than once or twice a week.

The tablets which he used had this advantage over solutions, that they did not deteriorate.

Selections.

CUTANEOUS DISEASES.

Botryomycosis, Human and Equine.—LOUIS DOR (*Lyon Médical*, vol. lxxxix, p. 279, October 30, 1898).

The author's conclusions are these:

1. The cutaneous tumor, described by Poncet and Dor last year, presents well-defined histological characters which give it an individuality.
2. The tumor is a fibroadenoma, its origin being clearly sudoriparous. To distinguish it from the true hidradenoma of Jacquet and Darier, from which it differs absolutely, and to emphasize its inflammatory neoplastic character it should be called fibro-adenosis or adenofibrosis.
3. The castration fungus of the horse is also a fibro-adenosis developed in the epididymis.
4. The individuality and unity of the parasites, although probable, is not yet as certain as the individuality of the neoplasm, and it is possible that several microbes are capable of causing the tumors after gaining entrance to the sweat-gland or epididymis.
5. The term, botryomycosis, may be used as well to indicate the fungus as the tumors on the fingers, but if hereafter various parasites are found in different tumors examined, it will be better to call the tumors fibro-adenosis, sudoriparous, or epididymitic, as the case may be, adding the adjective botryomycotic for the cases in which the botryomyces is found.

Xanthoma and Its Relation to Myeloma.—LOUIS DOR (*Lyon Médical*, vol. lxxxix, p. 279, October 30, 1898).

1. There exists a mixed tumor composed of xanthomatous and myelomatous tissue which should be called myeloxanthoma. The majority of myelomata with fibrous structures are really myeloxanthomata.

2. The myeloxanthoma constitutes a link in the chain between pure myeloma and pure xanthoma. Xanthoma cells and myeloplaxes (giant cells from the bone marrow) result from different histological evolutions, but are derived from cells primitively identical; in the first instance, these cells remain isolated; in the second, they are fused and their nuclei changed, constituting a single cell with multiple nuclei.

3. Pure myeloplaxes exist in xanthoma and it is probable the reverse is true.

4. The common origin of these two cells establishes between the tumors a close connection, and any pathogenetic theory relating to one applies probably to the other also.

5. It is interesting to note that, without seeing this interrelation, authors who have written on both subjects have expressed doubts as to the true neoplastic character of the tumors. It is necessary to wait for the demonstration of the inflammatory nature of myeloma and xanthoma.

A Case of Spontaneous Gangrene of All Four Extremities of the Body, of Very Acute Course and Fatal Termination, without Discoverable Cause.—JOSEPH MCFARLAND (*Phila. Med. Jour.*, vol. 2, p. 732, 1898).

A patient, complaining of severe prostration, with numerous blebs filled with clear fluid on his hands, with small and fluttering pulse, was brought into the University Hospital of Philadelphia. The superficial examination, made on admission, revealed that both feet were considerably swollen (edematous), bluish and very cold. Shortly after admission to the hospital the patient became restless and delirious, and before a more careful examination could be made he died. On the post-mortem table eight hours after death, the following condition of the body was noted. Both hands and both feet were in a condition of moist gangrene. The disease affected the limbs symmetrically, the lesions embracing all the fingers and thumbs, and extending up the dorsal surface to the third phalanges and up the palmar surfaces to the palms themselves. The right foot is involved to an extent including all of the toes, a small portion of the skin of the dorsum, and the plantar surface as far as the hollow of the foot. The left foot was less affected, the lesions being found most marked upon the great toe and the tips of the second and third toes. The ears, nose, and other features were free of gangrene. The autopsy revealed that the lesion which caused the gangrene and subsequently the death of the patient was not a microscopic one. No bacteriological examination could be made at that time, and when the specimens were later—during microscopic examination—carefully gone into for the presence of bacteria, their presence could not be discovered. No examination of the urine were made before the death of the patient, but shortly after death he was catheterized and neither sugar nor albumen were found. The author quotes two similar cases from the medical literature and concludes: that the case is one of rapid infection, with subsequent profound intoxication, and that the circulating toxin is the cause of the internal hemorrhagic and external gangrenous lesions.

SYPHILIS.

A Discussion on Some Aspects of Congenital Syphilis.—HUTCHINSON, ASHEY, BAGINSKY, COMBY, TELFORD-SMITH, HUTCHINSON, JR., etc. (*Brit. Med. Journ.*, No. 1972, October 15, 1898).

Hutchinson states that the information regarding congenital syphilis that

he has collected during the past twenty-five years had been of rather a negative than a positive nature. He devotes himself particularly to the relative frequency of late manifestations. Regarding diseases of bone in hereditary syphilis he has seen many cases resembling somewhat osteitis deformans, characterized by great enlargements and bending of the bones. The simultaneous affection of joints always occurred in young patients, never in those over twenty years of age. Neither does deafness occur at a late period. Gummata and other syphilitic affections of the tongue were also exceedingly rare, although a typical example was seen in a woman of thirty-three. Affections of the nervous system, such as degenerative changes, occur late in adolescent life. With the exception of phagedenic lupus, there is no reason to attribute to congenital syphilis forms of chronic skin disease occurring after infancy. Regarding marriage of subjects of hereditary taint, the evidence is so strongly against transmission to the third generation that such individuals are justified in believing it to be impossible. As to the time of marriage for syphilitics, two years is a sufficient interval; a period of longer waiting might produce more unhappy results than it would prevent. It is true that congenital syphilis was transmitted after two years in some cases, but if the eldest child suffered, the younger children usually escaped; the taint usually died out, even when both parents were affected. Many cases of congenital syphilis, so-called, are undoubtedly instances of mistaken diagnosis. No diagnosis should be made solely on the character of the skin eruption; there must be some other corroborative evidence. In discussing the brain-lesions of hereditary syphilis in early life, Ashby considers (1) fetal syphilis, (2) infantile syphilis, including relapses, and (3) tertiary syphilis, which occurs before or about the period of puberty. No definite lesion of syphilis has been demonstrated as occurring in utero. Microcephalic idiots have been born of syphilitic parents, and Ashby records such a case. Infantile syphilis occurs in a fairly large number of cases. The common lesion is an endarteritis, and the consequent softening, accompanied perhaps by marked meningitis. In rare cases gummata are found situated on the sheaths of some of the cerebral nerves and giving rise to paresis. In some cases the brain has been found adherent to the dura mater by a sort of gelatinous membrane covering the convexity of the base, with some patches of sclerosis in the area of the Sylvian fissure. Eclampsia of the Jacksonian type occurring in infants or young children and followed by paresis is suggestive of a syphilitic lesion of the brain. Ashby does not believe that the virus of syphilis has any marked effect in producing epileptic attacks apart from brain-lesions. He has never seen a typical case of posterior basal meningitis associated with a syphilitic history, nor does he believe that syphilis plays a prominent part in the production of infantile hemiplegia. This condition is more often due to hemorrhage from convulsions. Chronic hydrocephalus has in a large number of cases nothing to do with syphilis. Ashby has never seen the association, although some unquestionable cases have been recorded. As to tertiary syphilis, a well-marked group is formed by those cases of inherited syphilis in which brain-symptoms make their appearance at or just before puberty. In the majority of these cases the patients give evidence in their teeth and nose, in the form of scars, of having suffered from infantile syphilis. These cases grow persistently worse, eventually becoming demented and utterly helpless. On post-mortem examination they show marked meningeal syphilis, with atrophy of the brain and thickening of the dura mater and of the bones of the skull. There is also usually endarteritis. Emphasis is placed upon the fact that such cases sometimes occur independently of syphilis. Baginsky referred

to a case of spastic paralysis due to chronic pachymeningitis of syphilitic origin and terminating in idiocy. He does not believe in the transmission of syphilis to the third generation. Comby thinks that in the early diagnosis of syphilis of the newborn the facies is a sign of considerable value. The complexion is pale, the skin and mucous membranes washed out, anemia is present, and, above all, in the neighborhood of the natural orifices, eyes, nose, and mouth, there is a dull, earthy brownish coloration of irregular and ill-defined extent. The immediate treatment of these cases with mercury in the form of frictions is advocated. When cutaneous eruptions exist a bath of mercuric chlorid, one part in ten thousand, should be given twice a day. This treatment should be continued two or three years, being suspended for one month in every three. After the second year potassium iodid should be added and be suspended from time to time. Telford-Smith thinks the percentage of syphilitic idiots extremely low, at least later than six years of age and found in the asylums. He believes that the majority of children born with a sufficiently strong syphilitic taint to produce congenital idiocy would die in infancy or in early childhood, and consequently not be found in the asylums. Hereditary syphilis has an important influence on infantile mortality. It is probable that in many cases of congenital idiocy for which no adequate cause can be assigned an unacknowledged or untraceable history of syphilis exists. The influence of congenital syphilis in the production of idiocy is much greater than the present incomplete statistics would suggest. Still maintains that the rarity of gummatous infection of the spleen contrasts curiously with the frequency of clinical enlargement of that organ. Enlargement of the lymphatic glands is probably more common as the result of congenital syphilis than is generally supposed. Hutchinson thinks that many cases of congenital syphilis escape any symptom whatever throughout their lives, though born tainted; the consequences are far less inevitable than one is accustomed to think. He does not believe in a routine specific treatment, but rather in treating the symptoms as they arise and keeping the child alive. He, therefore, does not think it particularly important to diagnose and treat doubtful cases. Mercury does not check the symptoms in young children, and it is impossible to give a course of mercury to an infant without producing malformation of the teeth. Hutchinson has never given potassium iodid to a child or man if he could help it, and never to an infant. Ashby contended that mercury is of value in the acute stage, although it does not prevent symptoms. Potassium iodid is valuable in sloughing of the hard palate and similar acute conditions.—*Phila. Med. Journ.*

Pathology of Syphilis.—ADAMI (*Montreal Med. Journ.*, June, 1898).

The author's conclusions may be summarized in this way:

1. Occasionally, there may be absence of primary cutaneous or mucous membrane manifestations.
2. Individuals may not show primary or secondary lesions, yet may develop definite late symptoms.
3. In case there is an unsusceptibility, the patient may have a chancre, not followed by secondary outbreaks.
4. Syphilis, like tuberculosis, in the congenital form shows itself first in the secondary stages, *e.g.*, the stage of dissemination through the veins.
5. Syphilis, properly treated, if not a self-limited disease, is one which may heal and many late manifestations are merely indicative of the healed process, not evidences of a latent or progressive disease.
6. If the disease remains latent, the organism may resist it to such an

extent that it does not tend to reappear. Resistance is so great that the infection does not spread and the process remains localized to such an extent that neither the blood nor the secretions contain the virus.

7. In a very small number of instances, the reaction of the tissues may be so lessened and the virus retain or acquire so great a power that it causes ulceration or becomes disseminated and is able to cause infection late in the tertiary period.

8. In the liver of a new-born infant with secondary manifestations there may be several varieties of lesion: (*a*) well-defined gummata, (*b*) miliary gummata with generalized fibroid changes, (*c*) miliary gummata and fibrosis affecting the whole organ, (*d*) generalized atrophic cirrhosis without much gummatous change but with jaundice, edema, etc. From this, it is argued that in congenital disease of the liver the changes belong rather to the later than to this earlier period.

9. The liver of acquired syphilis shows two conditions: (*a*) cicatrices and fibroid changes indicative of a healed process, (*b*) the reawakening of a latent disease from old foci.

10. Progressive syphilis presents the same succession of phenomena whether studied a few months or many years after infection. Anatomically and histologically, no valid distinction can be drawn between secondary and tertiary syphilis.

Gastric Syphilis, with the Report of a Case of Perforating Syphilitic Ulcer of the Stomach.—FLEXNER (*The Amer. Journ. of Med. Sc.*, vol. 116, p. 424, 1898).

The case reported by the author is the first one recorded by writers in the English language and the fifteenth case published in medical literature. On two occasions the patient was examined in Johns Hopkins Hospital, and a probable diagnosis of hepatic cirrhosis was made.

The autopsy revealed old adhesions between liver, stomach, and pancreas; large hepatic gumma; syphilitic ulcer of the stomach with perforation; acute peritonitis. On opening the contracted stomach the mucous membrane generally presented a mammillated appearance, but in the fundus a large ulcer occupying the greater curvature was found. The base was the muscularis; the edges were thick, polypoid, and firm, and the perforation, 15x3 mm. in size. Microscopically, the pathological process was localized chiefly in the submucosa, presenting two distinct stages. The earlier stage consisted of a cellular infiltration of the submucosa by granulation tissue-cells. They were interpolated between the old connective-tissue fibers and collected into large, more independent foci. The infiltration extended into the muscular coat, and foci of necrosis occurred within the infiltration. The later stage consisted of dense fibrous tissue forming not only the elevated boundaries of the ulcer but all parts of it. Endarteritis, endophlebitis obliterans, and hyaline thrombosis, with organization were common. According to the author's opinion the ulcer was due to an indirect form of necrosis of the mucous membrane, brought about by the combined softening of the submucous gummatous infiltration and the obstruction and obliteration of blood-vessels in the same direction.

Danger of Error in Diagnosis between Chronic Syphilitic Fever and Tuberculosis.—E. G. JANEWAY (*The Amer. Jour. of Med. Sciences*, vol. 116, p. 251, 1898).

Seven histories of patients are given by the author to emphasize the point expressed in the title of his paper. Most of the cases were taken and

treated for tuberculosis, while a careful examination usually did not reveal tubercular symptoms, and only occasionally enlargement of liver and spleen. The guiding point was a careful consideration of the previous history of the patient. In the author's opinion many physicians are not aware that fever may attend the late manifestations of syphilis, more particularly of visceral syphilis, which may occasion a fever of long duration, malaise, emaciation, perhaps perspiration, without of necessity presenting such definite local manifestations, either external or internal, as can be made out on casual examination.

Observations on Cardiac Syphilis.—T. ADLER (*The New York Med. Jour.*, 68, p. 577, 1898).

In undertaking the microscopical examination of a number of hearts of syphilitics, presenting no or only slight cardiac affections during life and no well-marked gross anatomical changes, the author's aim was to ascertain whether minute lesions could not be found sufficient to throw some light on the early development of luetic heart lesions, and from which certain clinical deductions might possibly be derived. Four hearts of infants under four months of age that had exhibited unmistakable symptoms of syphilis, but none showing during life any symptoms of cardiac disease were examined. The hearts and large vessels appeared to the naked eye entirely normal. The sections were stained in various ways, but the ordinary hematoxylin-eosin stain was found most serviceable. Out of the four hearts, two gave unmistakable evidence of disease traceable to syphilitic infection, although neither the clinical history nor the macroscopical examination at the autopsy pointed toward any heart lesion. A fairly complete series could be established, leading from this earliest form of endarteritis through various stages of development up to complete fibrous degeneration and total occlusion of the blood-vessels. Then the author examined two hearts of adults, who bore unmistakable stigmata of syphilis (Addison's disease, caused by gummatous degeneration of the suprarenal capsules, interstitial hepatitis and gummata of liver) but who showed neither during life nor at the post-mortem examination any sign of cardiac lesion. In addition a heart was taken from the body of a negro woman between thirty and forty years old, which showed macroscopically in a very exaggerated form all the typical lesions of cardiac syphilis. Making a series of microscopical examinations the author demonstrated that at a time when neither the aorta, pulmonary artery, nor main trunks of the coronaries exhibit any signs of disease, endarteritic and peri-arteritic processes may develop in and about smaller vessels, which may be regarded to be the primary point of origin of the disease. The interstitial myocarditis and subsequent degeneration and destruction of the muscular tissue are only complementary to the primary vascular lesions. He further shows that before any functional disturbances or gross anatomical changes become apparent, interstitial myocarditis and its sequelæ, the disorganization of muscular tissue, may have become firmly established. Particularly must be remembered the comparative rapidity with which the simple cellular infiltration is converted into connective tissue, which latter again is quietly transformed into dense and hard fibrous material, to remove which all our known methods of treatment are powerless. In such cases the failure of antisiphilitic treatment to effect a cure does not necessarily militate against the diagnosis. But the other cellular proliferations and degenerations can be absorbed by timely therapeutic intervention. The author's microscopical examinations, showing that when clinical symptoms do appear the anatomical process has already attained some magnitude,

give a valuable hint to the therapist to intervene before the minute lesions in the heart walls have attained irreparable proportions. The physician will very often do a valuable service to his patient, in acting in accordance with the conclusion of the author: "In every case in which the etiology is not absolutely clear, and in which syphilis cannot with reasonable certainty be excluded, the iodids and mercurial preparations should be accorded the same privileges as the digitalis and strophanthus, strychnin and nitroglycerin. If carefully administered they cannot do any more harm than these latter, and may do immeasurably more good."

Syphilis of the Veins.—T. K. PROKSCH, Bonn, at Hanstein's, 1898.

The debt of gratitude which writers on syphilis—although not always acknowledged by them—owe to the author of the "History of Venereal Diseases and of "Literature of the Venereal Diseases" is increased by his latest monograph on syphilis of the veins. He has gathered from the original works of writers in all living and in some dead languages one hundred and seven cases of syphilis of "the intraparenchymatous and extraparenchymatous veins"—a number showing that it occurs oftener than we may assume, judging from the facts given in most of our text-books. Of the extraparenchymatous veins—the cutaneous veins and the veins of the lower extremities are chiefly affected, either in the beginning with secondary forms of syphilis or later with gummata. There are no pathognomonic symptoms of syphilitic phlebitis—a diagnosis can only be formed from the accessory symptoms. In syphilitic phlebitis during the secondary period several veins may be affected together or one after the other. Gummata of the veins are mostly circumscribed. In syphilitic phlebitis the veins are usually patulous, but in some cases they were clogged. More is known about the condition of intraparenchymatous veins of the lungs and kidneys when affected with syphilis. Specific treatment combined with local applications and rest will usually bring about the disappearance of the affection. In hereditary syphilis, phlebitis syphilitica plays a good part, but more anatomical and clinical observations are required to determine essential particulars.

Unfortunate Consequences of Intramuscular Injections of Salicylate of Mercury.—CARL GROUVEN (*Arch. of Der. u. Syph.*, vol. 42, p. 411, 1898).

In Doutrelepon's clinic during a period of four years, six hundred and forty-four patients received four thousand eight hundred and five intramuscular injections of a 10-per-cent. solution of salicylate of mercury. From 0.06-0.1 gram of mercury was administered in the buttocks every three to seven days. The author considers with special care two of the many troublesome sequelæ of the injections: polyneuritis and lung-embolism. One case of polyneuritis from the same clinic with a fatal end has already been reported by Brandt. The second case received eight weeks after, a three-weeks' course of inunctions and injections of salicylate of mercury (0.08 gram each). After the last injection an attack of headache and malaise set in, accompanied by a high (180) and irregular pulse, by slight ataxia of the lower extremities and twitching of muscles, with delirium at nights. The patient recovered after several months of severe illness.

Of the four lung-embolisms which followed the injections, two occurred ten hours after the injection, one, 2 1-2, after the sixth injection, and the last immediately after the sixteenth injection. All recovered. The author recommends the withdrawal of the syringe from the cannula before inject-

ing, and advises having the patient stand when the injection is administered, as such a position will enable the blood in case a vein is perforated to flow out easier.

Unpleasant Results of Mercurial Treatment of Syphilis.—HERMANN G. KLOTZ (*Arch. of Der. u. Syph.*, vol. 43, p. 407, 1898; *Pick's Festschrift*).

The author, employing in one hundred syphilitic patients one thousand and seventy-two intramuscular injections of insoluble preparations of mercury (red ox. of mer., salic. of m. and calomel, mostly the latter), has met with only eight embolisms in seven patients. The first two cases the author reported in 1890 (see JOURNAL, February and March, 1890), and the other six are given in this article. As a vehicle for the mercurial preparation he has used lately olive oil with lanolin (14:1).

Usually pain in the chest, fever, and a cough will result from an embolism; these symptoms appear three or even eight hours after the injection. Before administering the injection the patient is directed to lie flat, waiting till the contraction of the muscle following the insertion of the needle passes, the syringe is emptied slowly under slight pressure. He is inclined in the future to inject the mercury subcutaneously instead of in the muscles, hoping to avoid embolisms by this procedure. In the second part of his article the author considers the occurrence of salivation after the use of any form of mercury, and basing his deductions upon histories of two cases where salivation interfered with the regular course of treatment, the patients, being simultaneously affected with inflammatory tonsillitis—the author offers the suggestion that the increased amount of blood, which circulated in the inflamed tonsils, carried to the mouth a larger quantity of mercury, thus irritating the local tissues and giving rise to the salivation.

Orthoform as an Anesthetic in Intramuscular Injections of Mercury.—HEINRICH LOEB (*Mos.*, vol. 27, No. 1, p. 8, 1898).

The preparation is absolutely non-poisonous, and is very slowly absorbed. These two properties allow us firstly to use the drug in large amount without fear of evoking any symptoms of intoxication; secondly, to effect a protracted, gradually disappearing action. The preparation only exercises its action when it comes in contact with exposed nerves, being inactive when applied either to the skin or to the mucous membranes. In order to test its action when used hypodermatically, the author injected into his own buttocks 1 c.cm. of a ten-per-cent. mixture of orthoform-paraffin. No pain in the place of injection; no swelling appeared. Ten hours after injection a slight painful sensation, like the feeling after a contusion, manifested itself and lasted, gradually passing away after twenty-six hours. Following this experiment, he injected into the gluteal regions of eight patients a ten-per-cent. paraffin mixture of salicylate of mercury with an addition of five to ten per cent. of orthoform. The orthoform deposited on the bottom of the bottle as a white powder which could be evenly mixed by shaking the bottle. It did not occlude the needle. Only where the stopper came in contact with the neck of the bottle, the orthoform changed into a brownish powder. There was no pain during the day of the injection. Eight to ten hours later, the same kind of painful feeling as in the author's case manifested itself in the patients. No unfavorable symptoms could be noticed after the injection, owing to the fact that the sublimate-orthoform solution changes its white color to a yellowish one in twenty-four hours, the author did not use it for injections.

INDEX.

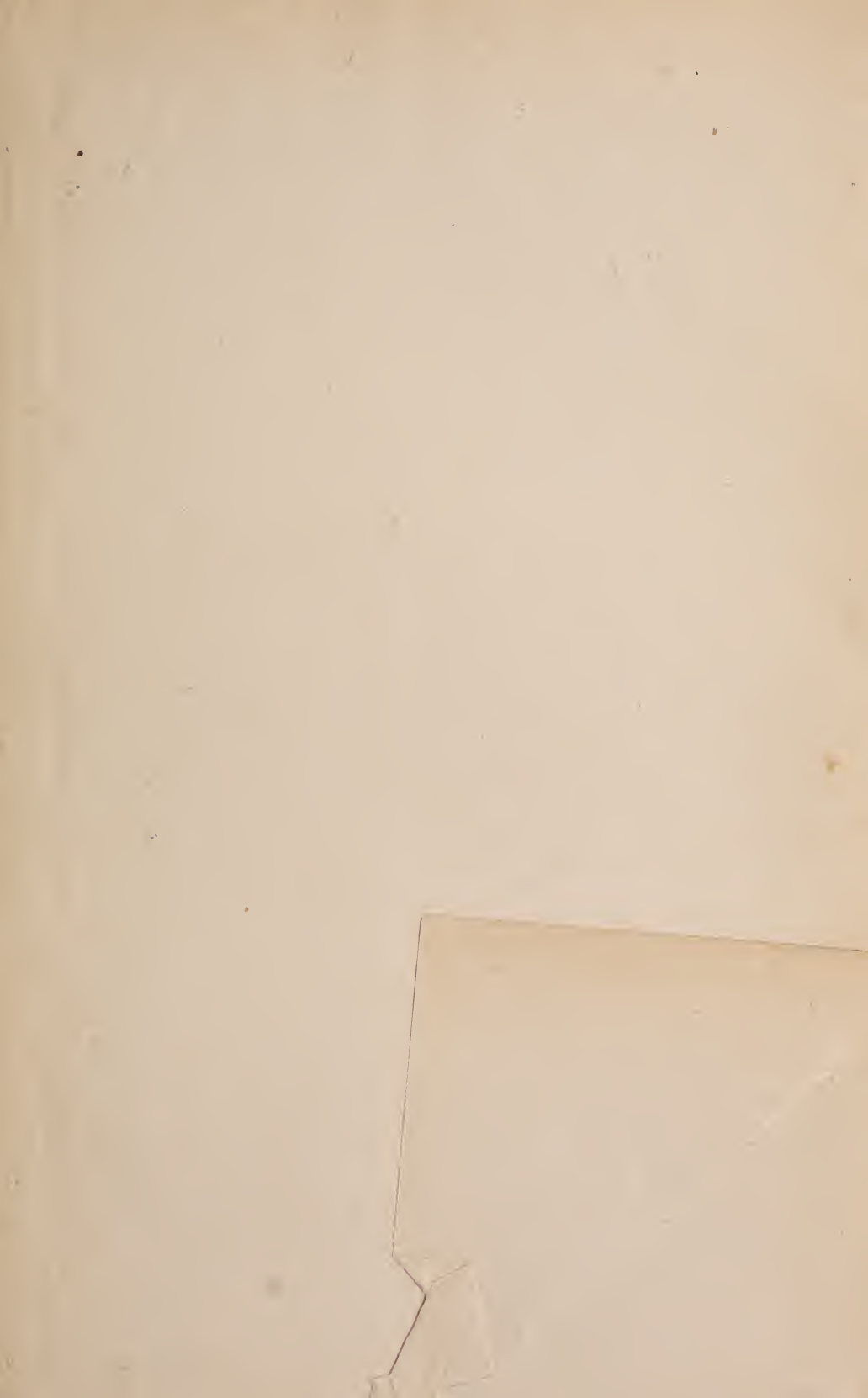
- Albarran-Guyon syringe, 398.
 Alkalinity of blood in skin diseases, 544.
 ALLEN, C. W., scale of measurements for skin lesions, 25.
 American Association of Genito-Urinary Surgeons, 377.
 American Dermatological Association, 405.
 ANTHONY, H. G. Impetigo contagiosa 218.
 Anuria due to calculus, 188.
 Anuria with one kidney, 350.
 Arsenical pigmentation, remarks on. Hardaway, 184.
 Arsenious acid in epithelioma, 543, 544.
 Bath pruritus, 445.
 Bladder and ureters, examination of, 249.
 Bladder, cases of recurrence of stone in. Cabot, 383.
 Bladder, extraperitoneal rupture, 250.
 Bladder, symptoms and treatment of tuberculosis of. Horwitz, 570.
 Bladder, tuberculosis of. Etiology and pathology. Coplin, 557.
 BOWEN, J. T. Congenital bullous dermatitis, 353.
 BOOK REVIEWS:
 About Children. Kelly, 138.
 American Text-Book of Genito-Urinary Diseases, Syphilis, and Skin. Bangs and Hardaway, 452.
 American Year-Book of Medicine and Surgery. Gould, 192.
 Atlas of Skin and Syphilitic Affections. Chotzen, 139.
 Cutaneous Medicine. Part II. Duhring, 134.
 International Medical Annual. Treat, 454.
 Pictorial Atlas of Skin and Syphilitic Affections, 136.
 Report on Bubonic Plague. Choksy, 453.
 Ringworm and Alopecia Areata. Aldersmith, 453.
 Sexual Disorders of the Male and Female. Taylor, 228.
 Book REVIEWS:
 Skin Diseases in Children. Fox, 454.
 System of Practical Medicine. Loomis, 193.
 Treatment of Gonorrhea. Delefosse, 137.
 Treatment of Skin Diseases. Leistikow, 95.
 Botryomycosis, 293, 597.
 BREWER, G. E. Use of urotropin in pyuria, 523.
 British Medical Association, 483.
 Bubo due to gonococcus, 96.
 Bubo, etiology and therapy, 251.
 Bullous eruption, a recurrent. Cortlett, 417.
 Bullous dermatitis, congenital. Bowen, 253.
 Calculus of bladder. Pousson, 31.
 Cancer of urethra, 191.
 Carcinoma, metastases from prostrate, 456.
 Case for diagnosis. Allen, 145, 491.
 Bronson, 88.
 Elliot, 88, 143.
 Fordyce, 145.
 Fox, 83, 289.
 Jackson, 144.
 Klotz, 82, 228.
 Sherwell, 535.
 of atrophy, symmetrical. Fordyce, 451.
 adenoma sebaceum. Fox, 450.
 atrophy, linear. Fox, 450.
 acne varioliformis. Allen, 86.
 Biskra button. Fordyce, 489.
 chancr of finger, 339.
 tongue. Foot, 145.
 turbinate. Jackson, 541.
 colloid milium. Lustgarten, 447.
 dermatitis exfoliativa. Jackson, 330.
 dermatitis exfoliativa. Morrow 541.
 dermatitis papillaris cap. Morrow, 538.

- Case of dermatitis papillaris cap. Sherwell, 533.
 disseminate carcinoma. Allen, 141.
 dystrophy of nails. Morrow, 446.
 eczema marginatum. Allen, 492.
 eczema rubrum. Robinson, 534.
 edema of face. Klotz, 337.
 epididymitis. Allen, 397.
 epididymitis. Guiteras, 295.
 epididymitis. Swinburne, 341.
 epispadias. Alexander, 587.
 epithelioma. Allen, 533.
 erythema exudativum. Bronson, 448.
 folliculitis decalvans. Fox, 86.
 hemiatrophia facialis. Sherwell, 448.
 hydradenitis papulosa. Elliot, 87.
 idiopathic sarcoma. Lustgarten, 140.
 inguinal adenitis. Guiteras, 587.
 keratosis. Sherwell, 451.
 keratosis follicularis. Elliot, 450.
 lepra. Fox, 446.
 lepra. Lustgarten, 451.
 lesions of palms. Jackson, 230.
 lichen planus. Allen, 336.
 lichen planus. Fordyce, 446, 536.
 lichen planus. Morrow, 446, 489.
 lupus. Morrow, 447.
 lupus erythematosus. Fordyce, 141.
 lupus erythematosus. Jackson, 140.
 lupus erythematosus. Lustgarten, 447.
 lupus erythematosus disseminatus. Whitehouse, 533.
 lupus vulgaris. Robinson, 538.
 melanosis. Lustgarten, 451.
 morphœa. Allen, 88.
 nævus. Fox, 447.
 nævus. Morrow, 449.
 nævus. Pollitzer, 447.
 necrotizing chilblains. Allen, 227.
 necrotic granulomata. Johnston, 335.
 Paget's disease. Sherwell, 448.
 penis, amputation of. Alexander, 587.
 pityriasis rosea. Allen, 340, 489, 491.
 pityriasis rubra. Jackson, 449.
 pityriasis rubra pilaris. Fox, 450.
 pityriasis rubra pilaris. Pollitzer, 446.
 pityriasis versicolor. Allen, 229.
 polymorphous disease. Bronson, 449.
 premycosis. Morrow, 447.
 prurigo. Lustgarten, 144.
 psoriasis of nails. Klotz, 451, 537.
 purpura papulosa. Sherwell, 446.
 rhinoscleroma. Allen, 537.
 rhinoscleroma. Klotz, 440.
- Case of scleroderma. Morrow, 142.
 syphilis. Allen, 490, 537.
 syphilis. Swinburne, 398.
 syphilides. Morrow, 541.
 syphilitic infection from cadaver, 541.
 symmetrical keratoderma. Lustgarten, 84.
 tuberculosis verrucosa. Cutler, 535.
 tuberculosis verrucosa. Lustgarten, 334.
 tuberculosis. Lustgarten, 140.
 tuberculosis and syphilis. Lustgarten, 493.
 universal lichen. Fordyce, 287.
 urethral calculus. Hawkes, 396.
 urethral fistula. Guiteras, 494.
 urticaria pigmentosa. Morrow, 447.
 vaccinia. Allen, 451.
 vesical calculus, 589.
 vitiligo. Fox, 231.
- Cases, 5000 of skin disease. Allen, 440.
 Castrates, are, capable of procreation. Sturgis, 394.
 Castration and angioneurectomy, 78.
 Castration and prostatic hypertrophy. Carlier, 32.
 Cocain, 455.
 COLBY and Winfield. Report on two cases of Savill's disease, 73.
 Colles' law, 548.
 COPLIN. Tuberculosis of bladder. Etiology and pathology, 557.
- Correspondence:
 Antipyrin as a Local Anesthetic. G. F. Lydston, 226.
 Description of a New Lithotrite Chismore, 482.
 Melancholia of Leprosy. A. S. Ashmead, 333.
 Motility of Spermatozoa. B. Lapowski, 334.
- Cutaneous horn, 454.
 Cystitis and pyelitis, 551.
 Cystitis due to colon bacillus complicated by phosphatic calculi. Swinburne, 374.
 Cystitis in children, 250.
 Cystotomy, suprapubic and resection of vasa deferentia, 191.
- Dermatitis exfoliativa. Diehl, 222.
 Dermatitis malignant papillary, 248.
 Dermatitis medicamentosa, 195.
 Dermatoses, hysterical, 299.
 Dermatoses, trophic, following fractures. Zeisler, 305, 418.
 Description of cutaneous lesions, scale for. Allen, 25.
- DIEHL, A. E. Case of dermatitis exfoliativa following typhoid, 222.
 Distoma subcutaneum, 249.

- DUHRING, L. A. Classification of diseases of the skin, 97.
- DYER, I. Xanthelasma (?) of lips and mucous membrane, 23.
- Eczema and washing, 503.
- Eczema, buckskin in, 279.
- Eczema, nature of. Morris and Beatty, 487.
- Eczema, what do we understand by? Morris, 477.
- Editorial notes, 155, 204, 356.
- Electrolysis for malignant tumors, 488.
- Endoscope, practical use of. Klotz, 309, 399.
- Erythema induratum, 501.
- Extrophy of bladder, 189.
- Favus of nails. Levisseur, 244.
- Fistulous openings between lumbar region and kidney. Horwitz, 29.
- French Association of Genito-Urinary Surgeons, 30, 76, 188.
- FULLER. Extirpation of prostate and resection of bladder for malignant disease, 581.
- FULLER. Seminal vesiculitis and prostatitis, 119.
- Gangrene of skin, 502.
- Gangrene, spontaneous, of extremities, 508.
- Gastrophilus larva, 297.
- Genito-urinary practice, hydraulic pressure in, 403.
- GILCHRIST, T. C. Monilethrix with unusual distribution, 157.
- Gonococcus, studies on, 154.
- Gonorrhea as a systemic disease, 80.
- Gonorrhea, observation on treatment of acute. Swinburne, 324.
- Gonorrhea, use of chlorinated soda in. Chassaignac, 23.
- Granuloma. Shepherd, 428.
- Granuloma trichophyticum, 106.
- GREENE, R. H. Syphilis of kidneys, 12.
- Guaiacol in epididymitis, 304.
- Gumma of suprarenal, 551.
- Hair; its growth, nutrition, dyeing, and removal, 197.
- HAY, W. G. Etiology of zoster, 1.
- Hematuria, factors in. Otis, 395, 589.
- HERZOG, M. Myoma of skin, 527.
- HORWITZ, O. An expedient to determine a fistulous opening between lumbar region and kidney, 29.
- A modification of the technic of perineal section, 362.
- Symptoms and treatment of tuberculosis of the bladder, 570.
- HYDE, J. N. President's address, 405.
- Hydroa æstivale, 106.
- Hydroa vacciniforme. White, 415, 514.
- Hydronephrosis, 76.
- Hydronephrosis due to calculus, 189.
- Hydronephrosis from stone, 351.
- Impetigo contagiosa. Anthony, 218.
- Impetigo herpetiformis in the male. Whitehouse, 169.
- Janet's modified sound, 291.
- JUSTUS, J. Kidney changes in syphilis, 280.
- KELLY. Male cystoscope, 341.
- Keratosis, hereditary, 455.
- Kidney, hemorrhage from. Rovsing, 488.
- Kidney, large tumors of, 81.
- Kidney, prognostic value of varicocele in tumors of, 82.
- Kidney, on the indications for operation in tuberculosis of and the choice of operative method. Park, 357, 377.
- Kidney, the other, in nephrectomy for renal tuberculosis. Bryson, 378.
- KLOTZ, H. G. The practical use of the endoscope, 309, 399.
- Leiomyoma, 545.
- Leprosy conference, 44.
- Leprosy, point of entrance of infection in, 296.
- Leprosy, serum-therapy, 554.
- LEVISEUR, F. J. Case of favus of nails, 224.
- Lichen planus, universal. Fordyce, 444.
- Lichen scrofulosorum. Gilchrist, 443.
- Lithotripsy, cutting and, 76.
- Lupus, calomel injections in, 298.
- Lupus erythematosus. Fordyce, 432.
- Lupus erythematosus, discussion on. White, Robinson, 431.
- Lupus erythematosus, discussion on. Boeck, Unna, 485.
- Lupus erythematosus, its amenability to treatment. White, 457.
- Lupus erythematosus, treatment of. Unna, 465.
- Lymphangioma circumscriptum, 298.
- Lymphangioma circumscriptum. Corlett, 430.
- Lymphangioma of labia majora. White, 67.
- Meatus, sclerotic narrowing of. Swinburne, 394.
- Melanosarcoma. Gilchrist, 420.
- Mercurial eruptions, 90.
- Mercurial treatment of syphilis, unpleasant results of, 604.
- Mercury, effect of, on kidneys, 550.
- Mercury in urine, 551.

- Mercury, orthoform as an anesthetic in injections of, 604.
 Mercury, unfortunate results of injections of salicylate, 603.
 Molluscum contagiosum, 501.
 Monilethrix with unusual distribution. Gilchrist, 157.
 MORRIS, M. What do we understand by eczema? 477.
 Mycosis fungoides, premycotic stage. Hyde and Montgomery, 423.
 Myoma, multiple, 45.
 Myoma, multiplex, 45.
 Myoma of skin. Herzog, 527.
 Nephrotomy for anuria, 82.
 New York Academy of Medicine. Section in Genito-Urinary Surgery, 33, 145, 232, 291, 341, 396, 494, 587.
 New York Dermatological Society, 82, 140, 227, 287, 334, 487, 533, 538.
 OSLER, WM. On diffuse scleroderma with reference to diagnosis and use of thyroid-gland extract, 49, 127.
 Papular, persistent dermatosis. Johnston, 442.
 PARK, ROSWELL. On the indications for operation in tuberculosis of the kidney and the choice of operative method, 357.
 Pemphigus neonatorum, 299.
 Penis, amputation of. Guiteras, 212.
 Penis of old people, 349.
 Perineal section, a modification of the technic of. Horwitz, 362.
 Phototherapy, 542.
 Pityriasis rubra, 197.
 Porokeratosis with report of case. Wende, 505.
 Porokeratosis, 545, 546, 547.
 President's address. Hyde, 405.
 Prostatic hypertrophy, castration in, 353.
 Prostatic hypertrophy, indications for operation on testis in, 79.
 Prostatic hypertrophy, operations on sexual organs for, 456.
 Prostatic hypertrophy, organs of generation after operation for, 301.
 Prostatic hypertrophy treated by Bottini's method, 235.
 Prostatic hypertrophy, treatment of, 300.
 Prostate, extirpation of and resection of bladder. Fuller, 581.
 Prostate. Greene, 390.
 Prostate, histology after operation, 79.
 Prostate, nature of enlargement of. Alexander, 397.
 Prostate, neoplasms, 552.
 Prostate, operations to cause atrophy of, 78.
 Prostatitis and vesiculitis. Swinburne, 295.
 Prostatitis, chronic catarrhal. Christian, 391.
 Prostatorrhoea and urethrorrhoea. Sturgis, 263, 499.
 Protargol, 554.
 Purpura, fulminant, 502.
 Purpura, infectious, 502.
 Pyonephrosis or renal congestion, 80.
 Pyosalpinx, 233.
 Rectal tube. Guiteras, 495.
 Renal hematuria without lesions, 302.
 Renal retention. Guyon, 30.
 Ringworm fungi, plurality of. Fox, 487.
 Sarcoma, case of multiple, idiopathic. Wende, 205.
 Sarcoma of cord, 554.
 Sarcoma of scalp. Dockrell, 488.
 Sarcoma of testis, 251.
 Sarcoma of urethra, 192.
 Savill's disease, report of two cases of. Colby and Winfield, 73.
 Scarification, histology of, 545.
 Scleroderma, on diffuse, with reference to diagnosis and use of thyroid-gland extract. Osler, 49, 127.
 Seminal vesiculitis and prostatitis. Fuller, 119.
 Seminal vesiculitis, pseudomembranous, 300.
 Skin disease, a rare parasitic, 455.
 Skin disease, rest in. Jamieson, 483.
 Smegma bacillus, 495.
 STELWAGON. Three cases of urticaria pigmentosa, 576.
 Sterilization of urethral instruments. Martin, 33.
 STURGIS, F. R. Prostatorrhoea and urethrorrhoea, 263.
 Suppuration in para-urethral canals in women, 77.
 SWINBURNE, G. K. Cystitis due to colon bacillus, complicated by phosphatic calculi, 374.
 Seminal Vesiculitis and Prostatitis, 119.
 Some observations on the treatment of acute gonorrhoea, 324.
 Syphilitic fever, 601.
 Syphilis and affections which resemble it. Fordyce, 382.
 Syphilis, hypodermatic injections of mercury in. Jones, 591.
 Syphilis, cardiac, 602.
 Syphilis, congenital, 593.
 Syphilis, gastric, 601.
 Syphilis, kidney changes in. Justus, 280.

- Syphilis, late, 297.
 Syphilis, micro-organisms in, 245.
 Syphilis of kidneys. Greene, 12.
 Syphilis of nose and throat. Bosworth, 343.
 Syphilis of veins, 603.
 Syphilis, pathology of, 600.
 Syphilis, treatment of, 346.
 Syphilis, treatment of. Guiteras, 236.
 Syphilis, two cases of. Owings, 329.
 Syphilitic jaundice, 347.
 Syphilitic phlebitis, 348.
 Syphilitic reinfection, 549.
 Syphilitics, life expectancy in, 348.
 Syphilitic strictures of rectum, 299.
- Testis, tumor of, 293.
 Therapeutic notes, 47, 95, 96, 203, 252, 354, 556.
 Trichorrhæxis nodosa, 94.
 Trichomycosis palmellæ, 93.
 Tuberculin, T.R., 231.
 Tuberculosis of kidney, surgical intervention in, 80.
- Ulcerating granuloma, 91.
 UNNA, P. G. Treatment of lupus erythematosus, 465.
 Ureter cystoscope. Ruggles, 497.
 Urethra, sequestrum as foreign body in, 402.
 Urethral stricture, treatment of. White, 151, 178.
 Urethritis, aseptic and of primitive infection, 190.
 Urethritis, bacteriological investigation in posterior, 353.
 Urethritis not due to gonococcus, 189.
 Urethrotomy, external. Hayden, 384.
- Urinary distance in prostatic hypertrophy. Keyes 385.
 Urinary tract, septic infection of. Newman, 488.
 Urotropin in pyuria. Brewer, 385, 523.
 Urticaria pigmentosa, three cases of. Stelwagon, 440, 576. **447**
- Vaccine vesicle, 545.
 Varicocele, 545.
 Vasogen, 481.
 Vesical calculi, 232.
- WENDE, G. W. A case of multiple, idiopathic sarcoma, 205.
 Porokeratosis, with report of case, 505.
 WHITE, J. C. Hydroa vacciniforme? 514.
 Lupus erythematosus. Its amenability to treatment, 457.
 Lymphangioma of labia majora vulvæ, 67.
- WHITEHOUSE, H. H. A case of impetigo herpetiformis in the male, 169.
- Xanthelasma of lips and buccal mucous membrane. Dyer, 23.
 Xanthoma and myeloma, 597.
 Xanthoma diabeticorum, 194.
 Xanthoma, monochoiacetic acid in treatment of. McGuire, 328.
 Xerostomia, 194.
 X-rays in treatment of skin diseases, 542.
- ZEISLER, J. Trophic dermatoses following fractures, 305.
 Zoster, etiology of. Hay, 1.
 Zoster, nature and pathogeny of, 197.



100

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